

New York State Museum

FREDERICK J. H. MERRILL Director
JOHN M. CLARKE State Paleontologist

Bulletin 65

cancelled

PALEONTOLOGY 8

CATALOGUE OF

11837

TYPE SPECIMENS OF PALEOZOIC FOSSILS

IN

NEW YORK STATE MUSEUM

BY

JOHN M. CLARKE

With the assistance of

RUDOLPH RUEDEMANN

Assistant State Paleontologist

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New York State Museum

FREDERICK J. H. MERRILL *Director*
JOHN M. CLARKE *State Paleontologist*

Bulletin 65

PALEONTOLOGY 8

CATALOGUE OF
TYPE SPECIMENS OF PALEOZOIC FOSSILS
IN
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By JOHN M. CLARKE
with the assistance of
RUDOLF RUEDEMANN

PREFACE

The type specimens of natural objects, that is the actual material on which published descriptive accounts and discussions have been based, constitute the unique treasures of a museum. Such objects once lost or destroyed, replacement is impossible. Howsoever imperfect or fragmentary the type or original specimen may be, of however superior quality some other example of the same creature, the second can not serve to scientific students the function of the first. The type specimen is the basis of comparison and reference for all time.

Efforts have been made by various writers to classify such type specimens according to the particular part they have played in the original description of the organic group to which they appertain, species, genus or family. Such type specimen, using the term loosely, may be the actual specimen from which the original description was drawn or one of several such specimens (*type*); or it may have served for a later illustration and description of the species, either by its own or some other author (*hypotype*). These distinctions are recognized in this catalogue, but it has not seemed practicable to enter into a more refined subdivision of types by the employment of other designations (e. g. *cotype*, *genotype*, *topotype*, etc.). Plastic reproductions of types or hypotypes are distinguished by the prefix *plasto*, thus: *plastotype*, *hypoplastotype*. Such objects have been listed here.

The publication of the *Palaontology of New York* and the extensive list of papers accessory and supplementary thereto have given birth to a

very large number of type specimens from the paleozoic strata of America. Some part of these, specially that utilized in the early volumes of the paleontologic reports, was the personal property of the author of those reports and passed from his hands to the possession of the American museum of natural history in the city of New York. Till the preparation of this catalogue was begun, no serious effort to bring together the type specimens in the state museum of these and other descriptions, into one place or record was ever carried to completion. Some years ago the writer undertook the work of publishing lists, believed to be complete at the time, of certain of the organic groups, namely the Crustacea, Vermes and Cephalopoda.¹ But a revision of these lists has shown considerable omissions, due somewhat to normal growth as investigations have progressed but more to the fact that these types have been scattered all through the collections of the museum both in the State Hall and in the Geological Hall. It has been an arduous task to search out and bring together these specimens, which during the past half century have become so widely and carelessly diffused, but their number is noteworthy, and the importance of this record justifies the labor put on it.

This catalogue is arranged as follows: the general classification is biologic and follows only the broadest subdivisions. Each entry represents a single specimen and is accompanied by two numbers, the first serial, the second fractional and corresponding to the number borne by the specimen. In this fractional number the numerator carries the number assigned to the major division, the genus and the species, while the denominator indicates the number of the specimen of the species. Thus, the sponge *Dictyospongia sceptrum* Hall (sp.) carries the number $\frac{2264}{2}$. 2000 is the number assigned to the *Spongiae*, 2260 that assigned to the genus *Dictyospongia*, 2264 the number for *D. sceptrum*, the fourth species of that genus, and $\frac{2264}{2}$ the number for the second specimen of this species. In the scheme of numbering the following is the allotment made for the major biologic divisions:

Plantae.....	100	Lamellibranchiata.....	9000
Protozoa.....	1000	Gastropoda.....	10000
Spongiae.....	2000	Pteropoda.....	11000
Cnidaria.....	3000	Cephalopoda.....	12000
Echinodermata.....	4000	Crustacea.....	} 13000 14000
Vermes.....	5000	Tracheata.....	15000
Bryozoa.....	6000	Pisces.....	16000
Brachiopoda.....	} 7000 8000		

¹N. Y. state geol. 11th an. rep't. 1892. p. 31-53; 12th an. rep't. 1893. p. 57-104.

For ease of use it has been the purpose to keep these divisions as broad as practicable, in order to avoid duplicating too often the alphabetic arrangement of the species and to maintain the elasticity of the scheme in the incorporation of future additions. The work does not purport to be one on taxonomy, but aims to present the arrangement in the simplest form. During the progress of the printing of the catalogue, a period of 18 months, the continuous publication of paleontologic researches and acquisitions to the collections by gift and purchase have notably increased the number of type specimens and these have been added in a supplementary list brought up to February 1903.

While the main part of the book is devoted to the biologic arrangement of the type material, a second part gives a concise relisting of the species in their stratigraphic arrangement.

A chief purpose of this record is to make available to students the card catalogue of these types now in the possession of the museum. At the same time, it serves to indicate the wealth of the museum in these important elements, of which upward of 5000 are here listed, a number which exceeds all type specimens of paleozoic organisms from the New York rocks in the possession of all other collections taken together.

JOHN M. CLARKE

Albany N. Y. 17 Ap. 1903

State Paleontologist

CORRIGENDA

Under $\frac{302}{1}$, 2d line; for p. 131 read p. 191

“ $\frac{2140}{1}$, 6th line; for fig. 5 read fig. 5, 6

Page 24, for $\frac{2331}{1}$ read $\frac{2330}{2}$

Under $\frac{3140}{1}$, 9th line; for Near read New

“ $\frac{3300}{2}$, 3d line; for fig. 2 read fig. 1

“ $\frac{3300}{3}$, 3d line; for fig. 1 read fig. 2

“ $\frac{6766}{1}$ insert New Scotland beds Near Clarksville N. Y.

“ $\frac{6881}{1}$ for *Stictopora investis* read *Stictopora invertis*

“ $\frac{7210}{3}$, 2d line; for no. 49 read no. 45

Page 307; $\frac{8320}{2}$ and $\frac{8320}{3}$ are the same specimen

Page 358, lines 13, 27, 29, 31 and 34; for *Aviculopecten* read *Actinopteria*

Page 602; *dele* $\frac{12242}{2}$. Type in the American museum of natural history, New York N. Y.

PLANTAE

ARCHAEOCALAMITES Stur

Archaeocalamites inornatus Dawson (sp.)

- 1 $\frac{100}{1}$ TYPE *Calamites inornatus* Dawson. Quarterly journal of the Geological society of London. 1862. 18:310, pl. 17, fig. 56.
Genesee shale Shore of Cayuga lake, N. Y.

ARTHROPHYCUS Hall

Arthrophycus harlani Conrad (sp.)

- 2 $\frac{120}{1}$ HYPOTYPE *Fucoides harlani* Conrad. Annual report on paleontology. 1838. p. 113.
Arthrophycus harlani Merrill. New York state museum bulletin 19. 1898. pl. 45, fig. 2.
Medina sandstone
- 3 $\frac{120}{2}$ HYPOTYPE Grabau. New York state museum bulletin 45. 1901. pl. 16.
Medina sandstone Lewiston N. Y.

BYTHOTREPHIS Hall

Bythotrephis antiquata Hall

- 4 $\frac{140}{1}$ TYPE *Buthotrephis antiquata* Hall. Paleontology of New York. 1847. 1:8, pl. 2, fig. 6.
Chazy limestone Chazy, Clinton co. N. Y.

Bythotrephis caespitosa Hall

- 5 $\frac{141}{1}$ TYPE *Buthotrephis?* *caespitosa* Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 170, pl. 1, fig. 1c.
Trenton limestone Near Watertown, Jefferson co. N. Y.

Bythotrephis gracilis Hall

- 6 $\frac{142}{1}$ TYPE *Buthotrephis gracilis* Hall. Paleontology of New York. 1847. 1:62, pl. 21, fig. 1.
Trenton limestone Jacksonburg, Herkimer co. N. Y.

Bythotrephis gracilis var. **crassa** Hall

- 6a $\frac{142a}{1}$ HYPOTYPE *Buthotrephis gracilis* var. *crassa* Hall. Paleontology of New York. 1852. 2:19.
Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 6.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Bythotrephis impudica Hall

- 7 $\frac{143}{1}$ TYPE *Bythotrephis impudica* Hall. Paleontology of New York. 1852. 2:20, pl. 6, fig. 2.
Clinton beds New Hartford, Oneida co. N. Y.

Bythotrephis palmata Hall

- 8 $\frac{144}{1}$ TYPE *Bythotrephis palmata* Hall. Paleontology of New York. 1852. 2:20, pl. 7, fig. 1a.
Clinton beds New Hartford N. Y.

CELLULOXYLON Dawson

Celluloxylon primaevum Dawson

- 9 $\frac{160}{1}$ TYPE *Celluloxylon primaevum* Dawson. Quarterly journal of the Geological society of London. 1881. 37:302.
Hamilton beds Hopewell, Ontario co. N. Y.
J. M. Clarke purchase

CORDAITES Unger

Cordaite (?) Dawson

- 10 $\frac{180}{1}$ TYPE *Cordaite* (?) Dawson. Quarterly journal of the Geological society of London. 1862. 18:318, pl. 16, fig. 59.
Oneonta beds Franklin, Delaware co. N. Y.

DADOXYLON Endlicher

Dadoxylon (Cordaioxylon) clarkii Dawson

- 11 $\frac{200}{1}$ TYPE *Dadoxylon clarkii* Dawson. Geological survey of Canada; report on Erian plants of Canada, pt 2. 1882. p. 124.
Genesee (Styliola) limestone Canandaigua lake, Ontario co. N. Y.
J. M. Clarke purchase

FUCOIDES Brongniart

Fucoides auriformis Hall¹

- 12 $\frac{220}{1}$ TYPE *Fucoides auriformis* Hall. Paleontology of New York. 1852. 2:7, pl. 3, fig. 4.
Medina sandstone Medina, Orleans co. N. Y.
Fucoides harlani see *Arthropycus harlani*

¹Probably not organic.

PALAEOPHYCUS Hall

Palaeophycus rugosum Hall

- 13 $\frac{240}{1}$ TYPE *Palaeophycus rugosum* Hall. Paleontology of New York. 1847. 1:63, pl. 21, fig. 2.
Trenton limestone West Canada creek,
Herkimer co. N. Y.

Palaeophycus tubulare Hall

- 14 $\frac{241}{1}$ TYPE *Palaeophycus tubularis* Hall. Paleontology of New York. 1847. 1:7, pl. 2, fig. 1.
Beekmantown limestone Amsterdam,
Montgomery co. N. Y.
- 15 $\frac{241}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 2, fig. 2.
Beekmantown limestone Fort Plain, N. Y.
- 16 $\frac{241}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 2, fig. 4.
Beekmantown limestone Fort Plain N. Y.
- 17 $\frac{241}{4}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 2, fig. 5.
Beekmantown limestone Fort Plain N. Y.

PERONOSPORITES

Peronosporites globosus Loomis

- 18 $\frac{260}{1}$ TYPE *Peronosporites globosus* Loomis. New York state museum bulletin 39. 1900. p. 225, pl. 16, fig. 4.
Clinton beds Rochester N. Y.
F. B. Loomis, donor

Peronosporites minutus Loomis

- 19 $\frac{261}{1}$ TYPE *Peronosporites minutus* Loomis. New York state museum bulletin 39. 1900. p. 225, pl. 16, fig. 5, 6.
Clinton beds Rochester N. Y.
F. B. Loomis, donor

Peronosporites ramosus Loomis

- 20 $\frac{262}{1}$ TYPE *Peronosporites ramosus* Loomis. New York state museum bulletin 39. 1900. p. 225, pl. 16,
fig. 1, 2.
Clinton beds Rochester N. Y.
F. B. Loomis, donor

- 21 $\frac{282}{2}$ TYPE Loomis. New York state museum bulletin 39.
1900. pl. 16, fig. 3.
Clinton beds Rochester N. Y.
F. B. Loomis, donor

PHYTOPSIS Hall

Phytopsis tubulosa Hall

- 22 $\frac{280}{1}$ TYPE Phytopsis tubulosum Hall. Paleontology
of New York. 1847. 1:38, pl. 8, fig. 1a.
Lowville limestone Fort Plain, N. Y.
- 23 $\frac{280}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 8, fig. 1b.
Lowville limestone Fort Plain N. Y.
- 24 $\frac{280}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 8, fig. 1c.
Lowville limestone Fort Plain N. Y.
- 25 $\frac{280}{4}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 8, fig. 1e.
Lowville limestone Fort Plain N. Y.

RHACHIOPTERIS Dawson

Rhachiopteris cyclopteroides Dawson

- 26 $\frac{300}{1}$ TYPE Rhachiopteris cyclopteroides Dawson.
Quarterly journal of the Geological society of London.
1862. 18:323. (Not figured)
Chemung beds¹ Montrose Pa.

Rhachiopteris pinnata Dawson

- 27 $\frac{301}{1}$ TYPE Rhachiopteris pinnata Dawson. Quar-
terly journal of the Geological society of London. 1862.
18:323, pl. 16, fig. 60.
Catskill sandstone² Montrose Pa.

Rhachiopteris punctata Dawson

- 28 $\frac{302}{1}$ TYPE (Unnamed) Vanuxem. Geological survey of New
York; report on the 3d district. 1842. p. 131,
fig 56.³
Rhachiopteris punctata Dawson. Quarterly
journal of the Geological society of London. 1862.
18:323, pl. 16, fig. 61.

"Catskill sandstone

Catskill, Greene co." N. Y.
[Label on museum specimen]¹ Base of Catskill group, New York. Dawson² In the description of this species the specimen is stated to have come from the Marcellus shale of New York.³ Between Bainbridge [Chenango co.] and Colesville [Broome co.]. Vanuxem From the Catskill group of New York. Dawson

Rhachiopteris tenuistriata Dawson

- 29 $\frac{303}{1}$ TYPE *Rhachiopteris tenuistriata* Dawson. Quarterly journal of the Geological society of London. 1862. 18:323, pl. 16, fig. 45.
Genesee shale Moravia, Cayuga co. N. Y.
- 30 $\frac{303}{2}$ TYPE Dawson. Quarterly journal of the Geological society of London. 1862. v. 18, pl. 16, fig. 46.
Genesee shale Moravia N. Y.

RUSOPHYCUS Hall**Rusophycus bilobatum** Hall

- 31 $\frac{340}{1}$ TYPE *Rusophycus bilobatus* Hall. Paleontology of New York. 1852. 2:24, pl. 9, fig. 1.
Clinton beds New Hartford, Oneida co. N. Y.
- 32 $\frac{340}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 9, fig. 2.
Clinton beds New Hartford N. Y.
- 33 $\frac{340}{3}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 9, fig. 3.
Clinton beds New Hartford N. Y.

SIGILLARIA Brongniart**Sigillaria simplicitas** Vanuxem

- 34 $\frac{360}{1}$ TYPE *Sigillaria simplicitas* Vanuxem. Geological survey of New York; report on the 3d district. 1842. p. 190, fig. 54.
Oneonta beds Between Mount Upton and North Bainbridge, Chenango co. N. Y.
Geological survey collection

SPHENOTHALLUS Hall**Sphenothallus latifolius** Hall

- 35 $\frac{380}{1}$ TYPE *Sphenothallus latifolius* Hall. Paleontology of New York. 1847. 1:262, pl. 68, fig. 2a.
Lorraine beds Near Schoharie N. Y.
- 36 $\frac{380}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 68, fig. 2b.
Lorraine beds Near Schoharie N. Y.
- 37 $\frac{380}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 68, fig. 2c.
Lorraine beds Near Schoharie N. Y.

- 38 $\frac{380}{4}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 68, fig. 2e.

Lorraine beds

Near Schoharie N. Y.

- 39 $\frac{380}{6}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 68, fig. 2f.

Lorraine beds

Near Schoharie N. Y.

Spirophyton velum see *Taonurus retortus*

TAONURUS Fischer-Ooster

Taonurus retortus Miller

- 40 $\frac{400}{1}$ TYPE Retort fucoid Vanuxem. Geological survey of New York; report on the 3d district. 1842. p. 177, fig. 47.

Spirophyton velum Hall. 16th annual report of the New York state cabinet of natural history. 1863, p. 82, fig. 4.

Ithaca beds

Deruyter, Madison co. N. Y.

Geological survey collection

PROTOZOA (?)

(RECEPTACULITIDAE)

Dictyocrinus squamifer see *Ischadites squamifer*

ISCHADITES Murchison

Ischadites bursiformis Hall (sp.)

- 41 $\frac{1000}{1}$ TYPE Receptaculites bursiformis Hall. Second annual report of the New York state geologist. 1883. Explanation of pl. 23, fig. 12.

Ischadites bursiformis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 24, fig. 12.

Schoharie grit

Drift near Thompsons lake,

Albany co. N. Y.

Ischadites squamifer Hall (sp.)

- 42 $\frac{1020}{1}$ TYPE Dictyocrinites Conrad. Annual report on the geological survey of New York. 1841. plate.

Dictyocrinus squamifer Hall. Paleontology of New York. 1859. 3:135, pl. 7A, fig. 11, 13.

Receptaculites squamifer Hall. 2d annual report of the New York state geologist. 1883. pl. 23, fig. 1, 2.

Ischadites squamifer Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 24, fig. 1, 2.

Helderbergian Schoharie N. Y.

Receptaculites bursiformis see *Ischadites bursiformis*

Receptaculites squamifer see *Ischadites squamifer*

RECEPTACULITES De France

Receptaculites sacculus Hall

42a $\frac{1040}{1}$ TYPE *Receptaculites sacculus* Hall. Transactions of the Albany institute. 1879. 10:1.

Hall. 11th annual report of the state geologist of Indiana. pl. 1, fig. 5.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

COELENTERATA

SPONGIAE

ACLOEODICTYA Hall & Clarke

Acloeodictya (?) **eccentrica** Hall (sp.)

43 $\frac{2000}{1}$ TYPE *Ectenodictya eccentrica* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 476, pl. (19) 20, fig. 1.

Acloeodictya (?) *eccentrica* Hall & Clarke
New York state museum memoir 2. 1898. pl. 54, fig. 1.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

Acloeodictya marsipus Hall & Clarke

44 $\frac{2001}{1}$ TYPE *Acloeodictya marsipus* Hall & Clarke.
New York state museum memoir 2. 1898. p. 178, pl. 60, fig. 4.

Keokuk beds

Indian Creek Ind.

A. S. Tiffany purchase

45 $\frac{2001}{2}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 60, fig. 5.

Keokuk beds

Indian Creek Ind.

A. S. Tiffany purchase

46 $\frac{2001}{3}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 61, fig. 1, 2.

Keokuk beds

Crawfordsville Ind.

A. S. Tiffany purchase

- 47 $\frac{2001}{4}$ TYPE Hall & Clarke. New York state museum memoir 2
1898. pl. 61, fig. 3.
Keokuk beds Crawfordsville Ind.
A. S. Tiffany purchase
- 48 $\frac{2001}{5}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 68, fig. 7.
Keokuk beds Indian Creek Ind.
A. S. Tiffany purchase
- 49 $\frac{2001}{6}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 68, fig. 8.
Keokuk beds Indian Creek Ind.
A. S. Tiffany purchase

ACTINODICTYA Hall

Actinodictya placenta Hall

- 50 $\frac{2020}{1}$ TYPE Actinodictya placenta Hall. 9th
annual report of the New York state geologist. 1890.
p. 60.
Hall & Clarke. New York state museum memoir 2.
1898. pl. 31, fig. 2.
Chemung beds Brown hill, near Cohocton N. Y.

AGLITHODICTYA Hall & Clarke

Aglithodictya numulina Hall & Clarke

- 51 $\frac{2040}{1}$ TYPE Aglithodictya numulina Hall & Clarke.
New York state museum memoir 2. 1898. p. 145, pl. 25,
fig. 6, 7, 8, 9.
Chemung beds Near Lawrenceville Pa.
Andrew Sherwood, coll. 1871

ARCHAEOCYATHELLUS Ford

Archaeocyathellus rarus Ford (sp.)

- 52 $\frac{2080}{1}$ TYPE Protocyathus rarus Ford. American
journal of science and arts, 3d ser. 1878. 15:124, 125,
fig. 1a, 1b.
Ethmophyllum rarum Walcott. U. S. geological
survey bulletin 30. 1886. pl. 5, fig. 2b.
Archaeocyathus (Archaeocyathellus)
rarus Walcott. 10th annual report of the director of
the U. S. geological survey. 1890. pl. 54, fig. 2b.
Lower Cambrian Troy N. Y.
S. W. Ford purchase

Archaeocyathellus rensselaericus Ford (sp.)

- 53 $\frac{2061}{1}$ TYPE *Archaeocyathellus? rensselaericus* Ford. American journal of science and arts, 3d ser. 1873. 5:211, 212, fig. 1.

Ethmophyllum rensselaericum Walcott.
U. S. geological survey bulletin 30. 1886. pl. 5, fig. 1f.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

Archaeocyathus rarus see *Archaeocyathellus rarus*

Arystidictya Hall & Clarke**Arystidictya nodifera** Hall & Clarke

- 54 $\frac{2080}{1}$ PLASTOTYPE *Arystidictya nodifera* Hall & Clarke. New York state museum memoir 2. 1898. p. 137, pl. 41, fig. 11.

Lower Chemung beds

Cotton hill, near Avoca N. Y.

Botryodictya Hall & Clarke**Botryodictya ramosa** Lesquereux (sp.)

- 55 $\frac{2100}{1}$ HYPOPLASTOTYPE *Dictyophytum ramosum* Lesquereux. Description coal flora Carboniferous formation Pennsylvania and United States. 1884. 3:827.

Botryodictya ramosa Hall & Clarke. New York state museum memoir 2. 1898. pl. 13, fig. 5.

Chemung beds

Lawrenceville Pa.

Calathospongia Hall & Clarke**Calathospongia carceralis** Hall & Clarke

- 56 $\frac{2120}{1}$ PLASTOTYPE *Calathospongia carceralis* Hall & Clarke. New York state museum memoir 2. 1898. p. 157, pl. 52, fig. 2.

Waverly beds

Richfield O.

- 57 $\frac{2120}{2}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. p. 60, fig. 1, 2.

Keokuk beds

Crawfordsville Ind.

A. S. Tiffany purchase

Calathospongia carlli Hall & Clarke

- 58 $\frac{2121}{1}$ TYPE *Calathospongia carlli* Hall & Clarke. New York state museum memoir 2. 1898. p. 158, pl. 52, fig. 4, 5.

Waverly beds

Near Pleasantville Pa.

J. F. Carll, donor. 1899

- 59 $\frac{2121}{2}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 52, fig. 6, 7.

Waverly beds

Near Pleasantville Pa.

J. F. Carll, donor. 1899

Calathospongia tiffanyi Hall & Clarke

- 60 $\frac{2122}{1}$ TYPE Calathospongia tiffanyi Hall & Clarke.
New York state museum memoir 2. 1898. p. 158, pl. 51,
fig. 5, 6.

Waverly beds

Ohio

A. S. Tiffany purchase

CERATODICTYA Hall & Clarke

Ceratodictya annulata Hall (sp.)

- 61 $\frac{2140}{1}$ PLASTOTYPE Dictyophyton annulatum Hall.
16th annual report of the New York state cabinet of
natural history. 1863. p. 90, pl. 3, fig. 3.

Ceratodictya annulata Hall & Clarke.

Memoir of the New York state museum. 1898. no. 2,
pl. 22, fig. 5.

Chemung beds

Western New York

Ceratodictya carpenteriana Hall & Clarke

- 62 $\frac{2141}{1}$ PLASTOTYPE Ceratodictya carpenteriana Hall
& Clarke. New York state museum memoir 2. 1898.
p. 117, pl. 42, fig. 1.

Chemung beds

Near Ischua N. Y.

Ceratodictya centeta Hall & Clarke

- 63 $\frac{2142}{1}$ TYPE Ceratodictya centeta Hall & Clarke.
New York state museum memoir 2. 1898. p. 120, pl. 41,
fig. 1.

Chemung beds

Ischua N. Y.

- 64 $\frac{2142}{2}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 41, fig. 5.

Chemung beds

Ischua N. Y.

Ceratodictya cincta Hall (sp.)

- 65 $\frac{2143}{1}$ PLASTOTYPE Dictyophyton cinctum Hall. 35th
annual report of the New York state museum of natural
history. 1884. p. 472.

Ceratodictya cincta Hall & Clarke. New
York state museum memoir 2. 1898. pl. 22, fig. 9.

Chemung beds

Erie Pa.

CLATHROSPONGIA Hall

Clathrospongia (?) desmia Hall & Clarke

- 66 $\frac{2160}{1}$ PLASTOTYPE *Clathrospongia (?) desmia* Hall & Clarke. New York state museum memoir 2. 1898. p. 125, pl. 25, fig. 3.

Chemung beds

Alfred N. Y.

Clathrospongia fenestrata Hall (sp.)

- 67 $\frac{2161}{1}$ TYPE *Dictyophyton fenestratum* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 90, pl. 3, fig. 4.

Clathrospongia fenestrata Hall & Clarke.
New York state museum memoir 2. 1898. pl. 14, fig. 2.

Chemung beds

Chemung narrows N. Y.

Clathrospongia (?) hamiltonensis Hall (sp.)

- 68 $\frac{2162}{1}$ TYPE *Dictyophyton hamiltonense* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 468.

Clathrospongia (?) hamiltonensis Hall & Clarke. New York state museum memoir 2. 1898. pl. 14, fig. 1.

Hamilton shales

Canandaigua lake N. Y.

Clathrospongia (?) irregularis Hall (sp.)

- 69 $\frac{2163}{1}$ TYPE *Dictyophyton irregulare* Hall. 35th annual report of the New York state museum of natural history. 1884.

p. 470.

Clathrospongia (?) irregularis Hall & Clarke.
New York state museum memoir 2. 1898. pl. 15, fig. 6, 7.

Chemung (Portage?) beds

Ithaca N. Y.

Clathrospongia (?) tomaculum Hall (sp.)

- 70 $\frac{2164}{1}$ PLASTOTYPE *Dictyophyton tomaculum* Hall. 9th annual report of the New York state geologist. 1890. p. 58.

Clathrospongia (?) tomaculum Hall & Clarke.
New York state museum memoir 2. 1898. pl. 21, fig. 11.

Chemung beds

Alfred N. Y.

CLEODICTYA Hall

Cleodictya gloriosa Hall

- 71 $\frac{2180}{1}$ PLASTOTYPE *Cleodictya gloriosa* Hall. 35th
annual report of the New York state museum of natural
history. 1884. p.479.

Cleodictya gloriosa Hall & Clarke. New York
state museum memoir 2. 1898. pl. 69, fig. 1; pl. 70, fig. 1.
Keokuk beds Crawfordsville Ind.

Cleodictya mohri Hall

- 72 $\frac{2181}{1}$ TYPE *Cleodictya? mohri* Hall. 35th annual
report of the New York state museum of natural history.
1884. p. 479.

Cleodictya mohri Hall & Clarke. New York state
museum memoir 2. 1898. p. 184, fig. 34, 35, 36, 37.
Keokuk beds Crawfordsville Ind.

CLEPSYDROSPONGIA Hall & Clarke

Clepsydrosporgia matutina Hall & Clarke

- 73 $\frac{2200}{1}$ TYPE: PLASTOTYPE *Clepsydrosporgia matu-*
tina Hall & Clarke. New York state museum memoir 2.
1898. p. 71, pl. 34, fig. 1, 2.

Portage beds

Naples N. Y.
D. D. Luther, coll. 1896

CRYPTODICTYA Hall

Cryptodictya alleni Hall

- 74 $\frac{2220}{1}$ TYPE *Cryptodictya alleni* Hall. 9th annual report of the New York state geologist. 1890. p. 60.

Cryptodictya alleni Hall & Clarke. New
York state museum memoir 2. 1898. pl. 31, fig. 3.

Chemung beds Lyndon, Cattaraugus co. N. Y.

CYATHODICTYA Hall & Clarke

Cyathodictya reticulata Walcott (sp.)

- 75 $\frac{2240}{1}$ HYPOTYPE *Cyathophycus reticulatus* Walcott. Transactions of the Albany institute. 1879. 10:18.

Cyathodictya reticulata Hall & Clarke.
New York state museum memoir 2. 1898. pl. 1, fig. 1.

Utica slate
Holland Patent N. Y.
W. P. Rust purchase

- 76 $\frac{2240}{2}$ **HYPOTYPE** Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 2.

Utica slate	Holland Patent N. Y.,
	W. P. Rust purchase

- 77 $\frac{2240}{3}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 3.
Utica slate Holland Patent N. Y.
W. P. Rust purchase
- 78 $\frac{2240}{4}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 4.
Utica slate Holland Patent N. Y.
W. P. Rust purchase
- 79 $\frac{2240}{5}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 5.
Utica slate Holland Patent N. Y.
W. P. Rust purchase
- 80 $\frac{2240}{6}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 6.
Utica slate Holland Patent N. Y.
W. P. Rust purchase
- 81 $\frac{2240}{7}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 7.
Utica slate Holland Patent N. Y.
C. Haskell purchase
- 82 $\frac{2240}{8}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 8.
Utica slate Holland Patent N. Y.
C. Haskell purchase
- 83 $\frac{2240}{9}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 9.
Utica slate Holland Patent N. Y.
W. P. Rust purchase
- 84 $\frac{2240}{10}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 10, 11.
Utica slate Holland Patent N. Y.
W. P. Rust purchase
- 85 $\frac{2240}{11}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 12.
Utica slate Holland Patent N. Y.
W. P. Rust purchase
- 86 $\frac{2240}{12}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 1, fig. 13.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

Cyathophycus reticulatus *see* *Cyathodictya reticulata*

Cyathophycus subsphaericus *see* *Sphaerodictya subsphaerica*

DICTYOSPONGIA Hall & Clarke

Dictyospongia cylindrica Whitfield (sp.)

- 87 $\frac{2260}{1}$ **HYPOTYPE** *Dictyophyton cylindricum* Whitfield. American museum of natural history bulletin 1. 1881. p. 19.

Dictyospongia cylindrica Hall & Clarke. New York state museum memoir 2. 1898. p. 166, fig. 22.
Keokuk beds Crawfordsville Ind.

Dictyospongia eumorpha Hall & Clarke

- 88 $\frac{2261}{1}$ **PLASTOTYPE** *Dictyospongia eumorpha* Hall & Clarke. New York state museum memoir 2. 1898. p. 75, pl. 15, fig. 3.
Chemung beds Wellsville N.Y.

Dictyospongia haplea Hall & Clarke

- 89 $\frac{2262}{1}$ **TYPE: PLASTOTYPE** *Dictyospongia haplea* Hall & Clarke. New York state museum memoir 2. 1898. p. 68, pl. 33, fig. 1.
Portage beds Naples N.Y.
D. D. Luther, coll. 1896.

Dictyospongia (?) marcellia Clarke (sp.)

- 90 $\frac{2263}{1}$ **TYPE** *Hyalostelia (?) marcellia* Clarke. 13th annual report of the New York state geologist. 1894. 1:177, pl. 4, fig. 19, 20, 21, 22.
Dictyospongia (?) marcellia Hall & Clarke. New York state museum memoir 2. 1898. pl. 41, fig. 8, 9.
Marcellus shale Livonia salt shaft, Livonia N.Y.
D. D. Luther coll. 1891

Dictyospongia sceptrum Hall (sp.)

- 91 $\frac{2264}{1}$ **PLASTOTYPE** *Dictyophyton sceptrum* Hall. 9th annual report of the New York state geologist. 1890. p. 56.
Dictyospongia sceptrum Hall & Clarke. New York state museum memoir 2. 1898. pl. 27, fig. 3.
Chemung beds Wellsville N.Y.
- 92 $\frac{2264}{1}$ **PLASTOTYPE** Hall & Clarke. New York state museum memoir 2. 1898. pl. 36, fig. 7.
Chemung beds Ischua N. Y.

Dictyospongia siraea Hall & Clarke

- 93 $\frac{2265}{1}$ TYPE *Dictyospongia siraea* Hall & Clarke.
New York state museum memoir 2. 1898. p. 75, pl. 42,
fig. 4.

Chemung beds Cotton hill, near Avoca N. Y.

- 94 $\frac{2265}{2}$ TYPE: PLASTOTYPE Hall & Clarke. New York state
museum memoir 2. 1898. pl. 42, fig. 5.

Chemung beds Avoca N. Y.

Dictyophyton amalthea see *Rhabdosispongia*
amalthea

Dictyophyton annulatum see *Ceratodictya*
annulata

Dictyophyton baculum see *Prismodictya* *bac-*
ulum

Dictyophyton catilliforme see *Phragmodictya*
catilliformis

Dictyophyton cinctum see *Ceratodictya cincta*

Dictyophyton conradi see *Prismodictya conradi*

Dictyophyton cylindricum see *Dictyo-*
spongia cylindrica

Dictyophyton fenestratum see *Clathro-*
spongia fenestrata

Dictyophyton filitextile see *Prismodictya*
filitextile

Dictyophyton hamiltonense see *Clathro-*
spongia (?) *hamiltonensis*

Dictyophyton irregulare see *Clathrospongia* (?)
irregularis

Dictyophyton nodosum see *Hydnoceras nodosum*

Dictyophyton parallelum see *Prismodictya*
parallela

Dictyophyton patulum see *Hydriodictya*
patula

Dictyophyton prismaticum see *Prismodictya*
prismatica

Dictyophyton randalli see *Thysanodictya ran-*
dalli

Dictyophyton rude see *Thysanodictya rudis*

Dictyophyton sceptrum see *Dictyospongia*
sceptrum

- Dictyophyton telum* *see* *Prismodictya telum*
Dictyophyton tenue *see* *Tylodictya ? tenuis*
Dictyophyton tomaculum *see* *Clathrospongia ? tomaculum*
Dictyophyton tuberosum *see* *Hydnoceras barroisi*
Dictyophyton tuberosum *see* *Hydnoceras tuberosum*
Dictyophytum ramosum *see* *Botryodictya ramosa*
Ectenodictya eccentrica *see* *Acloeodictya (?) eccentrica*
Ethmophyllum rarum *see* *Archaeocyathellus rarus*
Ethmophyllum rensseleerianum *see* *Archaeocyathellus rensseleerianus*

HALLODICTYA Hall & Clarke

Hallodictya cottoniana Hall & Clarke

- 95 $\frac{2280}{1}$ TYPE *Hallodictya cottoniana* Hall & Clarke.
 New York state museum memoir 2. 1898. p. 142, pl. 41,
 fig. 12.

Chemung beds Cotton hill, near Avoca N. Y.

Hallodictya sciensis Hall & Clarke

- 96 $\frac{2281}{1}$ PLASTOTYPE *Hallodictya sciensis* Hall &
 Clarke. New York state museum memoir 2. p. 140,
 pl. 36, fig 8.

Chemung beds Scio N. Y.

HELICODICTYA Hall & Clarke

Helicodictya (?) concordia Hall & Clarke

- 97 $\frac{2300}{1}$ PLASTOTYPE *Helicodictya (?) concordia* Hall
 & Clarke. New York state museum memoir 2. 1898.
 p. 115, pl. 27, fig. 2.

Chemung beds Concord station Pa.

Hyalostelia (?) marcellia *see* *Dictyospongia (?) marcellia*

HYDROCERAS Conrad

Hydnoceras barroisi Hall & Clarke

- 98 $\frac{2320}{1}$ PLASTOTYPE *Dictyophyton tuberosum* Barrois.
 Annales de la Société géologique du nord. 11:82, pl. 1,
 fig. 1a-e.

Hydnoceras barroisi Hall & Clarke. New York state museum memoir 2. 1898. p. 147, pl. 46, fig. 3, 4.

Psammites du Condroz Jeumont, Brittany
(upper Devonic)

***Hydnoceras bathense* Hall & Clarke**

- 99 $\frac{2321}{1}$ TYPE *Hydnoceras bathense* Hall & Clarke.
New York state museum memoir 2. 1898. p. 101, pl. 3,
fig. 3.

Chemung beds Jenks quarry, Bath N. Y.

- 100 $\frac{2321}{2}$ TYPE: PLASTOTYPE Hall & Clarke. New York state
museum memoir 2. 1898. pl. 8, fig. 4.

Chemung beds Jenks quarry, Bath N. Y.
C. Van Deloo, coll. 1886

- 101 $\frac{2321}{3}$ PLASTOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 9, fig. 1.

Chemung beds Jenks quarry, Bath N. Y.

***Hydnoceras botroedema* Hall & Clarke**

- 102 $\frac{2322}{1}$ TYPE *Hydnoceras botroedema* Hall & Clarke.
New York state museum memoir 2. 1898. p. 102, pl. 2
fig. 4.

Chemung beds Irish hill, near Bath N.Y.

***Hydnoceras eutheles* Hall & Clarke**

- 103 $\frac{2323}{1}$ TYPE *Hydnoceras eutheles* Hall & Clarke.
New York state museum memoir 2. 1898. p. 105, pl. 8,
fig. 5.

Chemung beds Cotton hill, near Avoca N. Y.

- 104 $\frac{2323}{2}$ TYPE: PLASTOTYPE Hall & Clarke. New York state
museum memoir 2. 1898. pl. 8, fig. 6.

Chemung beds Cotton hill, near Avoca N. Y.

- 105 $\frac{2323}{3}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 33, fig. 7.

Portage beds Varysburg N. Y.
D. D. Luther, coll. 1897

***Hydnoceras gracile* Hall & Clarke**

- 106 $\frac{2324}{1}$ TYPE *Hydnoceras gracile* Hall & Clarke. New
York state museum memoir 2. 1898. p. 70, pl. 33, fig. 3.

Portage beds Varysburg N. Y.
D. D. Luther, coll. 1897

- 107 $\frac{2324}{2}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 33, fig. 4.
Portage beds Varysburg N. Y.

D. D. Luther, coll. 1897

Hydnoceras legatum Hall & Clarke

- 108 $\frac{2325}{1}$ TYPE: PLASTOTYPE Hydnoceras legatum Hall & Clarke. New York state museum memoir 2. 1898.
p. 69, pl. 33, fig. 5.
Portage beds Naples N. Y.

D. D. Luther, coll. 1897

- 109 $\frac{2325}{2}$ TYPE Hall & Clarke. New York state museum memoir 2.
1898. pl. 33, fig. 6.
Portage beds Varysburg N. Y.

D. D. Luther, coll. 1897

Hydnoceras lutheri Hall & Clarke

- 110 $\frac{2326}{1}$ PLASTOTYPE Hydnoceras lutheri Hall & Clarke.
New York state museum memoir 2. 1898. p. 106, pl. 8,
fig. 10.

Lower Chemung beds Segur's gully, Italy N. Y.

D. D. Luther, coll. 1897

Hydnoceras multinodosum Hall & Clarke

- 111 $\frac{2327}{1}$ TYPE: PLASTOTYPE Hydnoceras multinodosum
Hall & Clarke. New York state museum memoir 2.
1898. p. 106, pl. 39, fig. 1.

Chemung beds Cotton hill, near Avoca N. Y.

Hydnoceras nodosum Hall

- 112 $\frac{2328}{1}$ PLASTOTYPE Dictyophyton nodosum Hall. 16th
annual report of the New York state cabinet of natural
history. 1863. p. 91, pl. 3, fig. 2.

Hydnoceras nodosum Hall & Clarke. New
York state museum memoir 2. 1898. pl. 2, fig. 2.

Chemung beds Cattaraugus co. N. Y.

Hydnoceras tuberosum Conrad

- 113 $\frac{2329}{1}$ PLASTOTYPE Hydnoceras tuberosum Conrad.
Journal of the Philadelphia academy of natural sciences.
1842. 8: 267, pl. 16, fig. 1.

Dictyophyton tuberosum Hall. 16th annual
report of the New York state cabinet of natural history.
1863. pl. 3, fig. 1.

Hydnoceras tuberosum Hall & Clarke. New York state museum memoir 2. 1898. pl. 4, fig. 2.

Chemung beds Near Addison N. Y.

- 114 $\frac{2329}{2}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 2, fig. 5.

Chemung beds Brown hill, near Cohocton N. Y.

- 115 $\frac{2329}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 3, fig. 1.

Chemung beds Brown hill, near Cohocton N. Y.

C. VanDeloo, coll. 1886

- 116 $\frac{2329}{4}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 3, fig. 2.

Chemung beds. Brown hill, near Cohocton N. Y.

Ward and Howell purchase

- 117 $\frac{2329}{5}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 3, fig. 4.

Chemung beds Brown hill, near Cohocton N. Y.

Ward and Howell purchase

- 118 $\frac{2329}{6}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 5, fig. 3.

Chemung beds Brown hill, near Cohocton N. Y.

Ward and Howell purchase

- 119 $\frac{2329}{7}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 5, fig. 4.

Chemung beds Brown hill, near Cohocton N. Y.

- 120 $\frac{2329}{8}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 7, fig. 2.

Chemung beds Brown hill, near Cohocton N. Y.

- 121 $\frac{2329}{9}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 8, fig. 2.

Chemung beds Brown hill, near Cohocton N. Y.

***Hydnoceras variabile* Hall & Clarke**

- 122 $\frac{2330}{1}$ TYPE: PLASTOTYPE *Hydnoceras variabile* Hall & Clarke. New York state museum memoir 2. 1898. p. 108, pl. 36, fig. 1.

Lower Chemung beds Deyo basin, Naples N. Y.

D. D. Luther, coll.

- 123 $\frac{2331}{1}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 37, fig. 5.

Lower Chemung beds Deyo basin, Naples N. Y.

D. D. Luther, coll.

HYDRIODICTYA Hall & Clarke

Hydriodictya cylix Hall & Clarke

- 124 $\frac{2340}{1}$ PLASTOTYPE *Hydriodictya cylix* Hall & Clarke. New York state museum memoir 2. 1898. p. 78, pl. 16, fig. 2.

Chemung beds Deyo basin, Naples N. Y.
D. D. Luther, coll.

Hydriodictya nephelia Hall & Clarke

- 125 $\frac{2341}{1}$ PLASTOTYPE *Hydriodictya nephelia* Hall & Clarke. New York state museum memoir 2. 1898. p. 79, pl. 21, fig. 10.

Chemung beds Scio N. Y.

Hydriodictya patula Hall (sp.)

- 126 $\frac{2342}{1}$ TYPE *Dictyophyton patulum* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 469.

Hydriodictya patula Hall & Clarke. New York state museum memoir 2. 1898. pl. 4, fig. 1.

Chemung beds Brown hill, near Cohocton N. Y.
Ward and Howell purchase

HYPHANTAENIA Vanuxem

Hyphantaenia chemungensis Vanuxem (sp.)

- 127 $\frac{2360}{1}$ TYPE *Uphantenia chemungensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 183, fig. 50.

Uphantenia chemungensis Hall. 16th annual report of the New York state cabinet of natural history. 1863. Figure on p. 86.

Hyphantaenia chemungensis Hall & Clarke. New York state museum memoir 2. 1898. pl. 28, fig. 2.

Chemung beds Near Owego, Tioga co. N. Y.

- 128 $\frac{2360}{2}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 28, fig. 1.

Chemung beds Near Owego, Tioga co. N. Y.
S. W. Adamy purchase

- 129 $\frac{2360}{3}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 45, fig. 1.

Chemung beds Union township, Broome co. N. Y.

LEBEDICTYA Hall & Clarke

Lebedictya crinita Hall & Clarke

- 130 $\frac{2380}{1}$ TYPE *Lebedictya crinita* Hall & Clarke. New York state museum memoir 2. 1898. p. 169, fig. 24.

Keokuk beds

Crawfordsville Ind.

- 131 $\frac{2380}{2}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 58, fig. 1, 2.

Keokuk beds

Crawfordsville Ind.

A. S. Tiffany purchase

- 132 $\frac{2380}{3}$ TYPE Hall & Clarke. New York state museum memoir 2. memoir 2. 1898. pl. 59, fig. 2.

Keokuk beds

Crawfordsville Ind.

A. S. Tiffany purchase

LYRODICTYA Hall

Lyrodictya romingeri Hall

- 133 $\frac{2400}{1}$ TYPE *Lyrodictya romingeri* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 476.

Hall & Clarke. New York state museum memoir 2. 1898. p. 170, fig. 25.

Keokuk beds

Crawfordsville Ind.

MASTODICTYA Hall & Clarke

Mastodictya osculata Hall & Clarke

- 134 $\frac{2420}{1}$ TYPE *Dictyospongia* (*Mastodictya*) *osculata* Hall & Clarke. New York state museum memoir 2. 1898. p. 167, fig. 23.

Keokuk beds

Crawfordsville Ind.

NEPHELIOSPONGIA Clarke

Nepheliospongia typica Clarke

- 135 $\frac{2440}{1}$ TYPE *Nepheliospongia typica* Clarke. New York state museum bulletin 39. 1900. p. 189, pl. 10, fig. 1.

Lower Chemung beds

Deyo basin, Naples N. Y.

J. M. Clarke, coll.

- 136 $\frac{2440}{2}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 10, fig. 2, 3.

Lower Chemung beds

Deyo basin, Naples N. Y.

J. M. Clarke, coll.

PHRAGMODICTYA Hall

Phragmodictya catilliformis Whitfield (sp.)

- 137 $\frac{2480}{1}$ HYPOTYPE Dictyophyton catilliforme Whitfield. American museum of natural history bulletin 1, 1881. p. 18.

Phragmodictya catilliformis Hall. 35th annual report of the New York state museum of natural history. 1884. p. 477, pl. (20) 21, fig. 2.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

- 138 $\frac{2480}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. p. 173, fig. 26, 27, 28, 29, 30.

Keokuk beds

Crawfordsville Ind.

- 139 $\frac{2480}{3}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (19) 20, fig. 2, 3.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 64, fig. 1, 2.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

- 140 $\frac{2480}{4}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 5.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 66, fig. 7.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

- 141 $\frac{2480}{5}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (17) 18, fig. 12, 13.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 66, fig. 8, 9.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

- 142 $\frac{2480}{6}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 6.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 67, fig. 1, 2.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

- 143 $\frac{2460}{7}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 1.
Hall & Clarke. New York state museum memoir 2.
1898, pl. 68, fig. 3.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

- 144 $\frac{2460}{8}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 4.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

Phragmodictya (?) crebristriata Hall

- 145 $\frac{2461}{1}$ TYPE Phragmodictya (?) crebristriata Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 7.

Hall & Clarke. New York state museum memoir 2.
1898. pl. 61, fig. 4.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

(?) Phragmodictya lineata Hall

- 146 $\frac{2462}{1}$ TYPE Phragmodictya lineata Hall. 35th annual report of the New York state museum of natural history. 1884. p. 478, pl. (20) 21, fig. 8.

(?) Phragmodictya lineata Hall & Clarke.
New York state museum memoir 2. 1898. pl. 68, fig. 5.

Keokuk beds

Crawfordsville Ind.

PHYSOSPONGIA Hall

Physospongia alternata Hall

- 147 $\frac{2480}{1}$ TYPE Physospongia alternata Hall. 35th annual report of the New York state museum of natural history. 1884. p. 481, pl. (19) 20, fig. 9.

Hall & Clarke. New York state museum memoir 2.
1898. pl. 62, fig. 11.

Keokuk beds

Crawfordsville Ind.

Physospongia colletti Hall

- 148 $\frac{2481}{1}$ TYPE Physospongia colletti Hall. 35th annual report of the New York state museum of natural history. 1884. p. 480, pl. (19) 20, fig. 7.

Keokuk beds

Crawfordsville Ind.

C. Van Deloo, coll. 1867

149 $\frac{2481}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. p. 193, fig. 43, 44.
Keokuk beds Crawfordsville Ind.

150 $\frac{2481}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 63, fig. 5, 6.
Keokuk beds Crawfordsville Ind.

Physospongia dawsoni Whitfield (sp.)

151 $\frac{2482}{1}$ HYPOTYPE *Uphantaenia dawsoni* Whitfield. American journal of science. 3d ser. 1881. 22:132.

Physospongia dawsoni Hall & Clarke. New York state museum memoir 2. 1898. p. 189, fig. 38, 39, 40, 41, 42.

Keokuk beds Crawfordsville and Indian Creek Ind.

152 $\frac{2482}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 62, fig. 4.
Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

153 $\frac{2482}{3}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (19) 20, fig. 6.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 62, fig. 10.

Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

Physospongia multibursaria Hall & Clarke

154 $\frac{2483}{1}$ TYPE *Physospongia multibursaria* Hall & Clarke. New York state museum memoir 2. 1898. p. 196, fig. 45.

Keokuk beds Crawfordsville Ind.

PRISMODICTYA Hall & Clarke

Prismodictya allegania Hall & Clarke

155 $\frac{2484}{1}$ PLASTOTYPE *Prismodictya allegania* Hall & Clarke. New York state museum memoir 2. 1898. p. 84, pl. 20, fig. 4.

Chemung beds Scio N.Y.

Prismodictya aulophia Hall & Clarke

156 $\frac{2485}{1}$ PLASTOTYPE *Prismodictya aulophia* Hall & Clarke. New York state museum memoir 2. 1898. p. 88, pl. 20, fig. 7.

Chemung beds Wellsville N. Y.

Prismodictya baculum Hall (sp.)

- 157 $\frac{2486}{1}$ TYPE *Dictyophyton baculum* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 471.

Prismodictya baculum Hall & Clarke. New York state museum memoir 2. 1898. pl. 18, fig. 3.

Chemung beds Wellsville N. Y.

Prismodictya cercidea Hall & Clarke

- 158 $\frac{2487}{1}$ PLASTOTYPE *Prismodictya cercidea* Hall & Clarke. New York state museum memoir 2. 1898. p. 89, pl. 20, fig. 1.

Chemung beds Wellsville N. Y.

Prismodictya cithara Hall & Clarke

- 159 $\frac{2488}{1}$ PLASTOTYPE *Prismodictya cithara* Hall & Clarke. New York state museum memoir 2. 1898. p. 90, pl. 35, fig. 3.

Chemung beds Scio N. Y.

- 160 $\frac{2488}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 35, fig. 1, 2.

Chemung beds Scio N. Y.

Prismodictya conradi Hall (sp.)

- 161 $\frac{2489}{1}$ TYPE *Dictyophyton conradi* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 89, pl. 5, fig. 2; pl. 5a, fig. 2.

Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (17) 18, fig. 3, 4, 4a.

Prismodictya conradi Hall & Clarke. New York state museum memoir 2. 1898. pl. 18, fig. 4; pl. 19, fig. 5, 6.

Chemung beds Randolph N. Y.

Prismodictya filitextilis Hall (sp.)

- 162 $\frac{2490}{1}$ PLASTOTYPE *Dictyophyton filitextile* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 88, pl. 4, fig. 5.

Prismodictya filitextilis Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 7.

Chemung beds Steuben county, N. Y.

- 163 $\frac{2490}{2}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 27, fig. 4.

Chemung beds Wellsville N. Y.

Prismodictya narthecia Hall & Clarke

- 164 $\frac{2491}{1}$ PLASTOTYPE *Prismodictya narthecia* Hall & Clarke. New York state museum memoir 2. 1898.
p. 90, pl. 35, fig. 4, 5.
Chemung beds Scio N. Y.

Prismodictya palaea Hall & Clarke

- 165 $\frac{2492}{1}$ TYPE: PLASTOTYPE *Prismodictya palaea* Hall & Clarke. New York state museum memoir 2. 1898.
p. 69, pl. 33, fig. 2.
Portage beds Naples N. Y.
D. D. Luther, coll. 1896

Prismodictya parallela Hall (sp.)

- 166 $\frac{2493}{1}$ PLASTOTYPE *Dictyophyton parallelum* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 471.
Prismodictya parallela Hall & Clarke. New York state museum memoir 2. 1898. pl. 19, fig. 4.
Chemung beds Southwestern New York

Prismodictya prismatica Hall (sp.)

- 167 $\frac{2494}{1}$ HYPOTYPE *Dictyophyton prismaticum* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 469.
Prismodictya prismatica Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 1.
Chemung beds Concord station Pa.

- 168 $\frac{2494}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 3.
Chemung beds Concord station Pa.

- 169 $\frac{2494}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 4.
Chemung beds Concord station Pa.

- 170 $\frac{2494}{4}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 6.
Chemung beds Concord station Pa.

- 171 $\frac{2494}{5}$ HYPOTYPE: HYPOPLASTOTYPE *Prismodictya* cf. *prismatica* Hall & Clarke. New York state museum memoir 2. 1898. pl. 42, fig. 6.
Lower Chemung beds Italy N. Y.

Prismodictya telum Hall (sp.)

- 172 $\frac{2495}{1}$ PLASTOTYPE *Dictyophyton telum* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 470.

Prismodictya telum Hall & Clarke. New York state museum memoir 2. pl. 17, fig. 3.

Chemung beds Wellsville N. Y.

Protocyathus rarus see *Archaeocyathellus rarus*.

RHABDOSISPONGIA Hall & Clarke**Rhabdosispongia amalthea** Hall (sp.)

- 173 $\frac{2500}{1}$ PLASTOTYPE *Dictyophyton amalthea* Hall. 9th annual report of the New York state geologist. 1890. p. 58.

Rhabdosispongia amalthea Hall & Clarke. New York state museum memoir 2. 1898. pl. 16, fig. 1.

Chemung beds Great Bend Pa.

SPHAERODICTYA Hall & Clarke**Sphaerodictya subsphaerica** Walcott (sp.)

- 174 $\frac{2520}{1}$ HYPOTYPE *Cyathophycus subsphaericus* Walcott. Transactions of the Albany institute. 1879. 10:19.

Sphaerodictya subsphaerica Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 16, 17.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

- 175 $\frac{2520}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 18, 22.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

- 176 $\frac{2520}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 19.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

- 177 $\frac{2520}{4}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 20.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

- 178 $\frac{2520}{5}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 21.

Utica slate Holland Patent N. Y.

THYSANODICTYA Hall & Clarke**Thysanodictya apleta Hall & Clarke**

- 179 ²⁵⁴⁰₁ TYPE: PLASTOTYPE *Thysanodictya apleta* Hall & Clarke. New York state museum memoir 2. 1898. p. 135, pl. 26, fig. 1.

Chemung beds

Alfred N. Y.

- 180 ²⁵⁴⁰₂ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 27, fig. 8.

Chemung beds

Alfred N. Y.

Thysanodictya hermenia Hall & Clarke

- 181 ²⁵⁴¹₁ PLASTOTYPE *Thysanodictya hermenia* Hall & Clarke. New York state museum memoir 2. 1898. p. 133, pl. 27, fig. 7.

Chemung beds

Alfred N. Y.

- 182 ²⁵⁴¹₂ PLASTOTYPE Hall & Clarke. York state museum memoir 2. 1898. pl. 39, fig. 2.

Chemung beds

Hinsdale N. Y.

- 183 ²⁵⁴¹₃ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 40, fig. 3.

Chemung beds

Hinsdale N. Y.

Thysanodictya poecilus Hall & Clarke

- 184 ²⁵⁴²₁ PLASTOTYPE *Thysanodictya poecilus* Hall & Clarke. New York state museum memoir 2. 1898. p. 127, pl. 24, fig. 11.

Chemung beds

Scio N. Y.

Thysanodictya randalli Hall (sp.)

- 185 ²⁵⁴³₁ TYPE *Dictyophyton randalli* Hall. 9th annual report of the New York state geologist. 1890. p. 57.

Thysanodictya randalli Hall & Clarke. New York state museum memoir 2. 1898. pl. 24, fig. 12.

Chemung beds

Warren Pa.

Thysanodictya rudis Hall (sp.)

- 186 ²⁵⁴⁴₁ TYPE *Dictyophyton rude* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 90, pl. 5, fig. 3.

Thysanodictya rudis Hall & Clarke. New York state museum memoir 2. 1898. pl. 23, fig. 6.

Chemung beds

Little Genesee N. Y.

- 187 $\frac{2544}{2}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 19, fig. 7.

Chemung beds Wellsville N. Y.

- 188 $\frac{2544}{3}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 23, fig. 1.

Chemung beds Ischua, Cattaraugus co. N. Y.

Thysanodictya saccus Hall & Clarke

- 189 $\frac{2545}{1}$ PLASTOTYPE *Thysanodictya saccus* Hall & Clarke. New York state museum memoir 2. 1898. p. 130, pl. 25, fig. 1, 2.

Chemung beds Whitesville, Allegany co. N. Y.

TYLODICTYA Hall & Clarke

Tylodictya (?) tenuis Hall (sp.)

- 190 $\frac{2560}{1}$ HYPOPLASTOTYPE *Dictyophyton tenue* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 474.

Tylodictya (?) tenuis Hall & Clarke. New York state museum memoir 2. 1898. pl. 53, fig. 4.

Waverly beds Warren Pa.

Tylodictya warrenensis Hall & Clarke

- 191 $\frac{2561}{1}$ PLASTOTYPE *Tylodictya warrenensis* Hall & Clarke. New York state museum memoir 2. 1898. p. 151, fig. 18.

Waverly beds Warren Pa.

Uphantenia chemungensis see *Hyphantaenia chemungensis*

Uphantania dawsoni see *Hyphantaenia dawsoni*

CNIDARIA

ACERVULARIA Schweigger

Acervularia inequalis Hall & Whitfield

- 192 $\frac{3000}{1}$ TYPE *Acervularia inequalis* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 233, pl. 9, fig. 11.

Upper Devonian Lime creek, Hackberry Grove near Rockford Ia.

R. P. Whitfield, coll. 1866

- 193 $\frac{3000}{2}$ TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 9, fig. 12.
Upper Devonic Hackberry Grove, near Rockford Ia.
R. P. Whitfield, coll. 1866.

Acervularia davidsoni see *Prismatophyllum davidsoni*

ALVEOLITES Lamarck

Alveolites rockfordensis Hall & Whitfield

- 194 $\frac{3020}{1}$ TYPE *Alveolites rockfordensis* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 229. (not figured)
Upper Devonic Lime creek, Hackerry Grove near Rockford Ia.
R. P. Whitfield, coll. 1866.

Astrea rugosa see *Phillipsastrea rugosa*

AULOPORA Goldfuss

Aulopora annectens Clarke

- 195 $\frac{3035}{1}$ PLASTOTYPE *Aulopora annectens* Clarke. U.S. geological survey bulletin 16. 1885. p. 63, pl. 3, fig. 15.
Naples beds Canandaigua lake, N. Y.

Aulopora elongata Hall

- 196 $\frac{3040}{1}$ TYPE *Aulopora elongata* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 143.
Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 14.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 14.
New Scotland beds Schoharie county, N. Y.

J. Gebhard purchase

- 197 $\frac{3040}{2}$ TYPE *Aulopora subtenuis* Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 19, 20.

Aulopora elongata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 19, 20.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

Aulopora iowensis Hall & Whitfield

- 198 $\frac{3041}{1}$ TYPE *Aulopora iowensis* Hall & Whitfield.
23d annual report of the New York state cabinet of
natural history. 1873. p. 235, pl. 10, fig. 5.
Upper Devonic Marly beds at Hackberry Grove Ia.
R. P. Whitfield, coll. 1866

Aulopora saxivadens Hall & Whitfield (*recte*)

- 199 $\frac{3042}{1}$ TYPE *Aulopora saxivadum* Hall & Whitfield.
23d annual report of the New York state cabinet of natural
history. 1873. p. 235, pl. 10, fig. 6.
Upper Devonic Lime creek, Hackberry Grove
near Rockford Ia.
R. P. Whitfield, coll. 1866

Aulopora schohariae Hall

- 200 $\frac{3043}{1}$ TYPE *Aulopora schohariae* Hall. 26th annual
report of the New York state museum of natural history.
1874. p. 110.
Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 2, fig. 5.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 5.
New Scotland beds Near Clarksville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of *Thamniscus variolata* Pal. N.Y.
v. 6, pl. 22, fig. 46.
- 201 $\frac{3043}{2}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 2, fig. 6.
Hall & Simpson. Paleontology of New York. 1887.
pl. 2, fig. 6.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of *Fenestella coronis*. Pal. N. Y.
v. 6, pl. 21, fig. 11.

Aulopora subtenuis Hall

- 202 $\frac{3044}{1}$ TYPE *Aulopora subtenuis* Hall. 32d annual
report of the New York state museum of natural history.
1879. p. 143.
Hall. 2d annual report of the New York state geologist.
1883. pl. 2, fig. 9.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 9.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

203 $\frac{3044}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 10.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 10.

Helderbergian Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

204 $\frac{3044}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 11.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 11.

New Scotland beds Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

205 $\frac{3044}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 12.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 12.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Thamniscus variolatus*. Pal.
N. Y. v. 6, pl. 22, fig. 46.

206 $\frac{3044}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 13.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 13.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Fenestella coronis*. Pal. N. Y.
v. 6, pl. 21, fig. 11.

207 $\frac{3044}{6}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 15, 16.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 15, 16.

Helderbergian Near Clarksville N. Y.

Aulopora subtenuis see *Aulopora elongata*

Aulopora tubula Hall

- 208 $\frac{3045}{1}$ TYPE *Aulopora tubula* Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 7.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 7.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

- 209 $\frac{3045}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 8.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 8.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

BLOTHROPHYLLUM Billings**Blothrophyllum conatum** Hall

- 210 $\frac{3060}{1}$ TYPE *Cyathophyllum conatum* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig. 3, 4.

Blothrophyllum conatum. New York state museum memoir (unpublished). pl. 16, fig. 25, 26.

Hamilton beds

Moscow, Livingston co. N. Y.

- 211 $\frac{3060}{2}$ TYPE *Cyathophyllum conatum* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig. 5.

Hamilton beds

York, Livingston co. N. Y.

- 212 $\frac{3060}{3}$ TYPE *Cyathophyllum conatum* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig. 11, 12.

Blothrophyllum conatum. New York state museum memoir (unpublished). pl. 16, fig. 20, 23.

Hamilton beds

Western New York

Geological survey collection

BOLBOPORITES Pander**Bolboporites americanus** Billings

- 213 $\frac{3080}{1}$ HYPOTYPE *Chaetetes* sp. indet. Hall. Paleontology of New York. 1847. 1:18, pl. 4, fig. 7.

Bolboporites americanus Billings. Canadian naturalist and geologist. 1859. 4:429.

Chazy limestone

Chazy, Clinton co. N. Y.

Buthotrephis? asteroides see *Dactyloidites asteroides*

Campophyllum nanum see *Charactophyllum nanum*

CAUNOPORA¹ Lonsdale**Caunopora planulata** Hall & Whitfield

- 214 $\frac{3100}{1}$ TYPE *Caunopora planulata* Hall & Whitfield.
 23d annual report of the New York state cabinet of natural
 history. 1873. p. 228, pl. 9, fig. 2.
 Upper Devonic Marly beds at Hackberry Grove
 near Rockford Ia.
 R. P. Whitfield, coll. 1866

CERATOSTIGMA Clarke

Ceratostigma papillata Clarke

- 215 $\frac{3120}{1}$ TYPE *Ceratostigma papillata* Clarke. 13th
 annual report of the New York state geologist. 1894.
 1:178, pl. 3, fig. 3, 4, 6.
 Hamilton shales Livonia salt shaft, Livingston co. N. Y.
 D. D. Luther, coll. 1891
- 216 $\frac{3120}{2}$ TYPE Clarke. 13th annual report of the New York state
 geologist. 1894. v. 1, pl. 3, fig. 5.
 Hamilton shales Livonia salt shaft, Livingston co. N. Y.
 D. D. Luther, coll. 1891
- 217 $\frac{3120}{3}$ TYPE Clarke. 13th annual report of the New York
 state geologist. 1894. v. 1, pl. 3, fig. 7.
 Hamilton shales Livonia salt shaft, Livingston co. N. Y.
 D. D. Luther, coll. 1891

CHAETETES Fischer

Chaetetes (Monotrypella) abruptus Hall

- 218 $\frac{3140}{1}$ TYPE *Chaetetes abruptus* Hall. 32d annual
 report of the New York state museum of natural history.
 1879. p. 148.
 Hall. 2d annual report of the New York state geologist.
 1883. pl. 9, fig. 9.
Chaetetes (Monotrypella) abruptus
 Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 9, fig. 9.
 Near Scotland beds Schoharie county, N. Y.
 J. Gebhard purchase
- 219 $\frac{3140}{2}$ TYPE Hall. 2d annual report of the New York state
 geologist. 1883. pl. 9, fig. 11.
 Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 9, fig. 11.
 Helderbergian Schoharie N. Y.

¹It is recognized that this name covers commensal organisms.

Chaetetes (Monotrypella) arbusculus Hall & Simpson

- 220 $\frac{3141}{1}$ TYPE *Chaetetes fruticosus* Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 1, 7.
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 12, pl. 9, fig. 1, 7.
 Manlius limestone Schoharie county, N. Y.
 J. Gebhard purchase
- 221 $\frac{3141}{2}$ TYPE *Chaetetes fruticosus* Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 2.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 2.
 Manlius limestone Schoharie county, N. Y.
 J. Gebhard purchase
- 222 $\frac{3141}{3}$ TYPE *Chaetetes fruticosus* Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 4.
Chaetetes (Monotrypella) arbusculus? Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 4.
 Manlius limestone Schoharie county, N. Y.
 J. Gebhard purchase
- 223 $\frac{3141}{4}$ TYPE *Chaetetes fruticosus* Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 3.
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 3.
 Manlius limestone Schoharie N. Y.
 J. Gebhard purchase
- 224 $\frac{3141}{5}$ TYPE *Chaetetes fruticosus* Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 5, 6.
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 5, 6.
 Manlius limestone Schoharie county N. Y.
 J. Gebhard purchase
- 225 $\frac{3141}{6}$ TYPE *Chaetetes fruticosus* Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 8.
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 8.
 New Scotland beds Schoharie county N. Y.
 J. Gebhard purchase
Chaetetes fruticosus see *Chaetetes arbusculus*

Chaetetes lycoperdon ? Hall

- 226 $\frac{3142}{1}$ HYPOTYPE *Chaetetes lycoperdon?* Hall. Paleontology of New York. 1847. 1:64, pl. 12, fig. 3.
 Lowville limestone Watertown, Jefferson co. N. Y.
Chaetetes sphaerica see *Favosites sphaericus*
Chaetetes tabulatus see *Ptychonema tabulatum*
Chaetetes sp. indet. see *Bolboporites americanus*

CHARACTOPHYLLUM Simpson

Charactophyllum nanum Hall & Whitfield (sp.)

- 227 $\frac{3160}{1}$ HYPOTYPE *Campophyllum nanum* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 232.
Charactophyllum nanum Simpson. New York state museum bulletin 39. 1900. v. 8, p. 210, fig. 28.
 Upper Devonic Hackberry Grove, near Rockford Ia.

CHAUNOGRAPTUS Hall

Chaunograptus novellus Hall

- 228 $\frac{3170}{1}$ TYPE *Dendrograptus* (s.g. *Chaunograptus*) *novellus* Hall. Transactions of the Albany institute. 1879. 10:2.
 Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 2.
 Niagaran Waldron Ind.

CLADOPORA Hall

Cladopora magna Hall & Whitfield

- 229 $\frac{3180}{1}$ TYPE *Cladopora magna* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 230, pl. 10, fig. 3.
 Middle Devonic Near Waterloo Ia.
 R. P. Whitfield, coll. 1866

- 230 $\frac{3180}{2}$ TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 10, fig. 4.
 Middle Devonic Near Waterloo Ia.
 R. P. Whitfield, coll. 1866

Cladopora palmata Hall & Whitfield

- 231 $\frac{3181}{1}$ TYPE *Cladopora palmata* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 231, pl. 10, fig. 1.
 Middle Devonic Near Waterloo Ia.
 R. P. Whitfield, coll. 1866

Cladopora smicra Clarke

- 232 $\frac{3182}{1}$ TYPE *Cladopora smicra* Clarke. New York state museum memoir 3. 1900. v. 3, p. 63, pl. 9, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.
- 233 $\frac{3182}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. v. 3, pl. 9, fig. 4, 6.
Oriskanian Becraft mountain, Hudson N. Y.
- 234 $\frac{3182}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. v. 3, pl. 9, fig. 5.
Oriskanian Becraft mountain, Hudson N. Y.

Cladopora styphelia Clarke

- 235 $\frac{3183}{1}$ TYPE: PLASTOTYPE *Cladopora styphelia* Clarke. New York state museum memoir 3. 1900. v. 3, p. 64, pl. 9, fig. 1.
Oriskanian Becraft mountain, Hudson N. Y.
- 236 $\frac{3183}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. v. 3, pl. 9, fig. 2.
Oriskanian Becraft mountain, Hudson N. Y.

CLISIOPHYLLUM Dana

Clisiophyllum oneidaense Billings

- 237 $\frac{3200}{1}$ HYPOTYPE *Clisiophyllum oneidaense* Billings. Canadian journal of industry, science and art. 1859. 4: 128.
Simpson. New York state museum bulletin 39. 1900. v. 8, p. 212, fig. 32.
Onondaga limestone Cayuga, Ontario

COLEOPHYLLUM Hall

Coleophyllum romingeri Hall

- 238 $\frac{3220}{1}$ PLASTOTYPE *Coleophyllum romingeri* Hall. 12th annual report of the Indiana state geologist. 1883. p. 317, pl. 24, fig. 8, 9.
New York state museum memoir (unpublished). pl. 32, fig. 10, 11.
Onondaga limestone Falls of the Ohio, Ky.

CYATHOPHYLLUM Goldfuss

Cyathophyllum conatum see *Blothrophyllum conatum*

Cyathophyllum galerum Hall

- 239 $\frac{3240}{1}$ TYPE *Cyathophyllum galerum* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 32, fig. 21, 22, 23.

New York state museum memoir (unpublished). pl. 19, fig. 25, 26, 27.

Hamilton beds

Moscow, Livingston co. N. Y.

Cyathophyllum hydraulicum (Simpson) Grabau

- 240 $\frac{3241}{1}$ TYPE: PLASTOTYPE *Cyathophyllum hydraulicum* Grabau. Geological society of America bulletin. 9:21, fig. 1a.

Manlius dolomite

Buffalo N. Y.

A. W. Grabau, donor

- 241 $\frac{3241}{2}$ TYPE: PLASTOTYPE Grabau. Geological society of America bulletin. 9:21, fig. 1b.

Manlius dolomite

Buffalo N. Y.

A. W. Grabau, donor

- 242 $\frac{3241}{3}$ TYPE: PLASTOTYPE Grabau. Geological society of America bulletin. 9:21, fig. 1c.

Manlius dolomite

Buffalo N. Y.

A. W. Grabau, donor

- 243 $\frac{3241}{4}$ TYPE: PLASTOTYPE Grabau. Geological society of America bulletin. 9:21, fig. 1d.

Manlius limestone

Buffalo N. Y.

A. W. Grabau, donor

Cyathophyllum nanum Hall

- 244 $\frac{3242}{1}$ TYPE *Cyathophyllum nanum* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 22, fig. 12, 13; pl. 31, fig. 14.

New York state museum memoir (unpublished). pl. 16, fig. 13, 14, 15.

Hamilton beds

Moscow, Livingston co. N. Y.

Cyathophyllum palum Hall

- 244 $\frac{3243}{1}$ TYPE *Cyathophyllum palum* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig. 17, 18.

New York state museum memoir (unpublished). pl. 16, fig. 16, 17.

Hamilton beds

York, Livingston co. N. Y.

Cyathophyllum rugosum see *Prismatophyllum rugosum*

CYLINDROPHYLLUM Simpson

Cylindrophyllum elongatum Simpson

- 246 $\frac{3280}{1}$ TYPE *Cylindrophyllum elongatum* Simpson.
New York state museum bulletin 39. 1900. p. 217,
fig. 42.

Onondaga limestone Clarksville, Albany co. N. Y.
J. W. Hall, coll. 1877

CYSTIPHYLLUM Lonsdale

Cystiphyllum varians Hall

- 247 $\frac{3280}{1}$ TYPE *Cystiphyllum varians* Hall. Illustrations
of Devonian fossils. Corals. 1876. pl. 29, fig. 1, 2.
Hamilton shales York, Livingston co. N. Y.

- 248 $\frac{3280}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals.
1876. pl. 29, fig. 3, 4.

Hamilton shales York N. Y.

- 249 $\frac{3280}{3}$ TYPE Hall. Illustrations of Devonian fossils. Corals.
1876. pl. 29, fig. 5.

Hamilton shales Moscow, Livingston co. N. Y.
C. Van Deloo, coll. 1865

- 259 $\frac{3280}{4}$ TYPE Hall. Illustrations of Devonian fossils. Corals.
1876. pl. 29, fig. 10, 11.

Hamilton shales Moscow N. Y.
C. Van Deloo, coll. 1865

DACTYLOIDITES Hall

Dactyloidites asteroides Fitch (sp.)

- 251 $\frac{3300}{1}$ HYPOTYPE (Type of Hall's species). *Buthotrephis?*
asteroides Fitch. Transactions of the New York
state agricultural society for 1849. 9: 101.

Dactyloidites bulbosus Hall. 39th annual
report of the New York state museum of natural history.
1886. pl. 11, fig. 1.

Georgian Middle Granville, Washington co. N. Y.
Rev. J. E. Baker, donor

- 252 $\frac{3300}{2}$ HYPOTYPE (Type of Hall's species). *Dactyloidites*
bulbosus Hall. 39th annual report of the New York
state museum of natural history. 1886. pl. 11, fig. 1.

Georgian Middle Granville N.Y.
Rev. J. E. Baker, donor

- 253 $\frac{3300}{3}$ HYPOTYPE *Dactyloidites asteroides* Walcott. 10th annual report of the director of the U. S. geological survey. 1890. pl. 57, fig. 2.

Georgian

Middle Granville N. Y.

Dactyloidites bulbosus see *Dactyloidites asteroides*

DIDYMOGRAPTUS McCoy

Didymograptus sagitticaulis Gurley

- 254 $\frac{3320}{1}$ TYPE *Graptolithus sagittarius* (Hisinger) Hall. Paleontology of New York. 1847. v. 1, p. 272, pl. 74, fig. 1a.

Trenton beds (Normans kill shale)

Kenwood, Albany N. Y.

DIPLOGRAPTUS McCoy

Diplograptus foliaceus Murchison

- 255 $\frac{3340}{1}$ HYPOTYPE *Graptolithus foliaceus* Murchison. The Silurian system. pt 2. 1839. p. 695.

Diplograptus pristis Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 4, fig. 1.

Lower Trenton beds (Normans kill shale)

Glenmont, Albany co. N. Y.

C. Van Deloo, coll. 1883

Diplograptus pristis see *Diplograptus foliaceus*

DITOECHOLASMA Simpson

Ditoecholasma fanninganum Safford (sp.)

- 256 $\frac{3360}{1}$ HYPOTYPE *Petraia fanningana* Safford. Geology of Tennessee. 1869. p. 320.

Ditoecholasma fanninganum Simpson. New York state museum bulletin 39. 1900. p. 201, fig. 5.

Helderbergian or Niagaran Perry county, Tenn.

- 257 $\frac{3360}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 201, fig. 6.

Helderbergian or Niagaran

Perry county, Tenn.

ENTEROLASMA Simpson

Enterolasma strictum Hall (sp.)

- 258 $\frac{3380}{1}$ TYPE *Streptelasma* (*Petraia*) *stricta* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 114.

Streptelasma strictum Hall. 2d annual report of the New York state geologist. 1883. pl. 1, fig. 2.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 1, fig. 2.

Enterolasma strictum New York state museum
memoir (unpublished). pl. 12, fig. 16.

New Scotland beds Near Clarksville, Albany co. N. Y.

259 $\frac{3380}{2}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 1, fig. 9.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 1, fig. 9.

New York state museum memoir (unpublished). pl. 12,
fig. 28.

New Scotland beds Albany co. N. Y.

***Enterolasma waynense* Safford (sp.)**

260 $\frac{3381}{1}$ HYPOTYPE *Petraia waynensis* Safford. Geology
of Tennessee. 1869. p. 314.

Enterolasma waynense Simpson. New York
state museum bulletin 39. 1900. p. 204, fig. 13.

Helderbergian or Niagaran Near Clarksville N. Y.

J. Hall & C. E. Beecher, coll. 1885

261 $\frac{3381}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39.
1900. p. 204, fig. 14.

Helderbergian or Niagaran Perry county, Tenn.

262 $\frac{3381}{3}$ HYPOTYPE Simpson. New York state museum bul-
letin 39. 1900. p. 204, fig. 15.

Helderbergian or Niagaran Perry county, Tenn.

Eridophyllum simcoense see *Synaptophyllum*
simcoense

ERIDOPHYLLUM Milne-Edwards & Haime

***Eridophyllum rugosum* Milne-Edwards & Haime**

263 $\frac{3400}{1}$ HYPOTYPE *Eridophyllum rugosum* Simpson.
New York state museum bulletin 39. 1900. p. 213, fig. 38.

Niagaran Falls of the Ohio, Ky.

FAVOSITES Lamarck

***Favosites arbusculus* Hall**

264 $\frac{3420}{1}$ TYPE *Favosites arbuscula* Hall. Illustrations
of Devonian fossils. Corals. 1876. pl. 36, fig. 5.

Hamilton beds Canandaigua lake, Ontario co. N. Y.

Favosites forbesi var. **occidentalis** Hall

- 265 $\frac{3420a}{1}$ HYPOTYPE *Favosites forbesi* var. *occidentalis* Hall. 28th annual report of the New York state museum. 1879. p. 109.

Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 11.

Niagaran

Waldron Ind.

- 266 $\frac{3420a}{2}$ HYPOTYPE Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 12.

Niagaran

Waldron Ind.

- 267 $\frac{3420a}{3}$ HYPOTYPE Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 13.

Niagaran

Waldron Ind.

- 268 $\frac{3420a}{4}$ HYPOTYPE Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 14.

Niagaran

Waldron Ind.

Favosites helderbergiae Hall

- 269 $\frac{3421}{1}$ TYPE *Favosites helderbergiae* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 111.

Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 3.

New Scotland beds Near Clarksville, Albany co. N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

- 270 $\frac{3421}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 4.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

- 271 $\frac{3421}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 5, 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 5, 6.

New Scotland beds

Near Clarksville N. Y.

- 272 $\frac{3421}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 7.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

Favosites niagarensis ? Hall

- 273 $\frac{3422}{1}$ HYPOTYPE *Favosites niagarensis* Hall. Paleontology of New York. 1852. v. 2, pl. 73, fig. 1a.
Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

- 274 $\frac{3422}{2}$ HYPOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 73, fig. 1c.
Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Favosites proximus Hall

- 275 $\frac{3423}{1}$ TYPE *Favosites proximus* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 147.

Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 13

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 13.

New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

- 276 $\frac{3423}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 14.

New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

Favosites sphaericus Hall

- 277 $\frac{3424}{1}$ TYPE *Chaetetes sphaerica* Hall. 26th annual report of the New York state museum of natural history. 1874. p. III.

Favosites sphaericus Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 4.

New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

- 278 $\frac{3424}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 7.

Coeymans limestone

Schoharie county, N. Y.

J. Gebhard purchase

- 279 $\frac{3424}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 9.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

Graptolithus foliaceus see *Diplograptus foliaceus*

Graptolithus sagittarius see *Didymograptus sagitticaulis*

Graptolithus subtenuis see *Leptograptus subtenuis*

Graptolithus tenuis see *Leptograptus subtenuis*

HELIOPHYLLUM Hall

Heliophyllum halli var. *reflexum* see *Heliophyllum reflexum*

Heliophyllum irregulare Hall

- 280 $\frac{3440}{1}$ TYPE *Heliophyllum irregulare* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 24, fig. 1, 2.

New York state museum memoir (unpublished). pl. 25, fig. 3, 4.

Hamilton beds

Darien Center, Genesee co. N. Y.

C. A. White, coll. 1860

- 281 $\frac{3440}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 24, fig. 3, 4, 5.

New York state museum memoir (unpublished). pl. 25, fig. 1, 2.

Hamilton beds

Western New York

- 282 $\frac{3440}{3}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 24, fig. 6.

New York state museum memoir (unpublished). pl. 25, fig. 5.

Hamilton beds

Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1865

Heliophyllum reflexum Hall

- 283 $\frac{3441}{1}$ TYPE *Heliophyllum halli* var. *reflexum* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 23, fig. 6.

Heliophyllum reflexum. New York state museum memoir (unpublished). pl. 25, fig. 17.

Hamilton beds York, Livingston co. N. Y.
C. Van Deloo, coll. 1865

- 284 $\frac{3441}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 23, fig. 8, 9, 10, 11.

New York state museum memoir (unpublished). pl. 25, fig. 14, 15, 16.

Hamilton beds Livingston county, N. Y.

Kionelasma Simpson**Kionelasma herzeri** Hall (sp.)

- 285 $\frac{3460}{1}$ HYPOTYPE *Zaphrentis herzeri* Hall. Descriptions of fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 35.

Kionelasma herzeri Simpson. New York state museum bulletin 39. 1900. p. 208, fig. 25.

Ulsterian Louisville Ky.

Kionelasma mammiferum Hall (sp.)

- 286 $\frac{3461}{1}$ HYPOTYPE *Streptelasma mammiferum* Hall. Descriptions of fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 21.

Kionelasma mammiferum Simpson. New York state museum 39. 1900. p. 208, fig. 23.

Ulsterian Falls of the Ohio, Ky.

- 287 $\frac{3461}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 208, fig. 24.

Ulsterian Falls of the Ohio, Ky.

Laccophyllum Simpson**Laccophyllum acuminatum** Simpson

- 288 $\frac{3480}{1}$ TYPE *Laccophyllum acuminatum* Simpson. New York state museum bulletin 39. 1900. p. 202, fig. 8.

Niagaran or Helderbergian Perry county, Tenn.

- 289 $\frac{3480}{2}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 202, fig. 9.

Niagaran or Helderbergian Perry county, Tenn.

LEPTOGRAPTUS Lapworth

Leptograptus subtenuis Hall (sp.)

- 290 $\frac{3500}{1}$ TYPE *Graptolithus tenuis* (Portlock) Hall.
Paleontology of New York. 1847. 1:272, pl. 74, fig. 2a.
Graptolithus subtenuis Hall. Miller's American
Paleozoic fossils. 1877. p. 244.
Trenton beds Kenwood, Albany N. Y.
(Normans kill shale)
On same slab with *D. sagitticaulis*, Pal. N. Y. v. 1,
pl. 74, fig. 1a.

LOPHOLASMA Simpson

Lopholasma carinatum Simpson

- 291 $\frac{3520}{1}$ TYPE *Lopholasma carinatum* Simpson. New
York state museum bulletin 39. 1900. p. 206, fig. 19.
Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891
- 292 $\frac{3520}{2}$ TYPE Simpson. New York state museum bulletin 39.
1900. p. 206, fig. 20.
Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891
- 293 $\frac{3520}{3}$ TYPE Simpson. New York state museum bulletin 39.
1900. p. 207, fig. 22.
Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

MENISCOPHYLLUM Simpson

Meniscophyllum minutum Simpson

- 294 $\frac{3540}{1}$ TYPE *Meniscophyllum minutum* Simpson.
New York state museum bulletin 39. 1900. p. 200,
fig. 2.
Kinderhook beds Rockford Ind.
- 295 $\frac{3540}{2}$ TYPE Simpson. New York state museum bulletin 39.
1900. p. 200, fig. 3.
Kinderhook beds Rockford Ind.
- 296 $\frac{3540}{3}$ TYPE Simpson. New York state museum bulletin 39.
1900. p. 200, fig. 4.
Kinderhook beds Rockford Ind.

MICHELINIA De Koninck

Michelinia lenticularis Hall

- 297 $\frac{3560}{1}$ TYPE *Michelinia lenticularis* Hall. 26th annual
report of the New York state museum of natural history.
1874. p. 113.

Hall. 2d annual report of the New York state geologist. 1883. pl. 3, fig. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 3, fig. 5.

New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

PACHYPHYLLUM Milne-Edwards & Haime

Pachyphyllum woodmani White (sp.)

298 $\frac{3580}{1}$ **HYPOTYPE** *Smithia woodmani* White. Geological report of Iowa. 1870. 1:188.

Pachyphyllum woodmani Hall. 23d annual report of the New York state cabinet of natural history. 1873. pl. 9, fig. 9.

Upper Devonian Rockford (Lime creek) Ia.

Petraia fanningana see *Ditoecholasma fanninganum*

Petraia waynense see *Enterolasma waynense*

PHILLIPSASTREA d'Orbigny

Phillipsastrea rugosa Hall

299 $\frac{3600}{1}$ **TYPE** *Astrea rugosa* Hall. Geology of New York; report on the 4th district. 1843. p. 159, fig. 2.

Phillipsastrea rugosa New York state museum memoir (unpublished). pl. 35, fig. 4.

Onondaga limestone Leroy, Genesee co. N. Y.
Geological survey collection

Phytopsis cellulosum see *Tetradium cellulosum*

PLACOPHYLLUM Simpson

Placophyllum tabulatum Simpson

300 $\frac{3620}{1}$ **TYPE** *Placophyllum tabulatum* Simpson. New York state museum bulletin 39. 1900. p. 216, fig. 41.

Onondaga limestone Walpole Ont.
C. D. Walcott, coll. 1878

PLUMALINA Hall

Plumalina densa Hall

301 $\frac{3630}{1}$ **TYPE** *Plumalina densa* Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 6.

Chemung beds Belvidere, Allegany co. N. Y.

Plumalina plumaria Hall

- 302 $\frac{3631}{1}$ TYPE *Filicites* ? Hall. Geology of New York; report on the 4th district. 1843. expl. pl. 68.

Plumalina plumaria Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 1.

Ithaca beds Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870.

- 303 $\frac{3631}{2}$ TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 2.

Ithaca beds Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

- 304 $\frac{3631}{3}$ TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 3

Ithaca beds. Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

- 305 $\frac{3631}{4}$ TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 4.

Ithaca beds Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

- 306 $\frac{3631}{5}$ TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 5.

Ithaca beds Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

PRISMATOPHYLLUM Simpson**Prismatophyllum davidsoni** Hall (sp.)

- 307 $\frac{3640}{1}$ HYPOTYPE *Acervularia davidsoni*? Hall. Geology of Iowa. 1858. v. 1, pt 2, p. 476.

Prismatophyllum davidsoni Simpson. New York state museum bulletin 39. 1900. p. 219, fig. 43.

Middle Devonian Iowa

Prismatophyllum rugosum Milne-Edwards & Haime (sp.)

- 308 $\frac{3641}{1}$ HYPOTYPE *Cyathophyllum rugosum* Milne-Edwards & Haime Monographie des polypiers fossiles des terrains Palaeozoiques. 1851. p. 387.

Prismatophyllum rugosum Simpson. New York state museum bulletin 39. 1900. p. 219, fig. 44.

Onondaga limestone Falls of the Ohio, Ky.

- 309 $\frac{3641}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 220, fig. 45.

Onondaga limestone Falls of the Ohio, Ky.

PTYCHONEMA Hall

Ptychonema tabulatum Hall

- 310 $\frac{2660}{1}$ TYPE *Chaetetes tabulatus* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 37, fig. 16, 17, 18, 19.

Chaetetes? tabulatus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 12, 13, 14, 15.

Ptychonema tabulatum Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 12, 13, 14, 15.

Coralline (Cobleskill) limestone ? Schoharie co. N. Y.

PTYCHOPHYLLUM Milne-Edwards & Haime

Ptychophyllum striatum Hall

- 311 $\frac{3670}{1}$ TYPE *Ptychophyllum striatum* Hall. 35th annual report of the New York state museum. 1884. p. 426, pl. 25, fig. 6, 7, 8.

Onondaga limestone.

Cayuga Ont.

J. DeCew, coll. 1866

SCENOPHYLLUM Simpson

Scenophyllum conigerum Rominger (sp.)

- 312 $\frac{3680}{1}$ HYPOTYPE *Zaphrentis conigera* Rominger. Geological survey of Michigan. 1876. v. 8, pt 2, p. 149.

Scenophyllum conigerum Simpson. New York state museum bulletin 39. 1900. p. 211, fig. 30.

Onondaga limestone

Falls of the Ohio, Ky.

- 313 $\frac{3680}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 212, fig. 31.

Onondaga limestone

Falls of the Ohio, Ky.

SCHOENOPHYLLUM Simpson

Schoenophyllum aggregatum Simpson

- 314 $\frac{3700}{1}$ TYPE *Schoenophyllum aggregatum* Simpson. New York state museum bulletin 39. 1900. p. 215, fig. 39.

St Louis limestone Glasgow Junction, Barren co. Ky.

- 315 $\frac{3700}{2}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 215, fig. 40.

St Louis limestone Glasgow Junction, Barren co. Ky.

SMITHIA Milne-Edwards & Haime

Smithia johannis Hall & Whitfield

- 316 $\frac{3720}{1}$ TYPE *Smithia johanni* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 234, pl. 9, fig. 10.

Upper Devonic Marly beds at Hackberry
near Rockford Ia.
R. P. Whitfield, coll. 1866

Smithia multiradiata Hall & Whitfield

- 317 $\frac{3721}{1}$ TYPE *Smithia multiradiata* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 234 (not figured).

Upper Devonic Marly beds at Hackberry
near Rockford Ia.
R. P. Whitfield, coll. 1866

Smithia woodmani see *Pachyphyllum woodmani*

STEREOLASMA Simpson

Stereolasma rectum Hall

- 318 $\frac{3740}{1}$ HYPOTYPE *Strombodes ? rectus* Hall. Geology of New York; report on the 4th district. 1843. p. 209.
Streptelasma recta Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 19, fig. 9.

Stereolasma rectum. New York state museum memoir (unpublished). pl. 3, fig. 5.

Hamilton beds Hamburg-on-the-Lake N. Y.
J. W. Hall and C. Van Deloo, coll. 1865

- 319 $\frac{3740}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 205, fig. 17.

Hamilton beds Hamburg-on-the-Lake, N. Y.
C. A. White, coll. 1860

- 320 $\frac{3740}{3}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 205, fig. 16.

Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

Stereolasma ungula Hall

- 321 $\frac{3741}{1}$ TYPE *Streptelasma ungula* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 19, fig. 18.

Streptelasma ungula. New York state museum memoir (unpublished). pl. 3, fig. 9.

Hamilton beds Western New York

- 322 $\frac{3741}{2}$ **HYPOTYPE** Simpson. New York state museum bulletin
39. 1900. p. 205, fig. 18.
Hamilton beds Hamburg-on-the-Lake N. Y.
C. Van Deloo, coll. 1864

STREPTELASMA Hall

Streptelasma aequidistans Hall

- 323 $\frac{3760}{1}$ **TYPE** Streptelasma aequidistans Hall. 35th
annual report of the New York state museum of natural
history. 1884. p. 424, pl. 24, fig. 10, 11.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

Streptelasma expansum Hall

- 324 $\frac{3761}{1}$ **TYPE** Streptelasma expansa Hall. Paleon-
tology of New York. 1847. 1: 17, pl. 4, fig. 6a.
Chazy limestone Chazy, Clinton co. N. Y.
(According to Simpson this fossil is a section of crinoid or
cystid plate)

Streptelasma lamellatum Hall

- 325 $\frac{3762}{1}$ **TYPE** Streptelasma lamellatum Hall. De-
scriptions of fossil corals of the Niagara and Upper Helder-
berg groups. 1882. p. 18.
Hall. 35th annual report of the New York state
museum of natural history. 1884. pl. 23, fig. 1.
Onondaga limestone Cayuga Ont.
J. De Cew, coll. 1866

Streptelasma mammiferum *see* Kionelasma
mammiferum

Streptelasma multilamellosum Hall

- 326 $\frac{3763}{1}$ **TYPE** Streptelasma multilamellosa Hall.
Paleontology of New York. 1847. 1: 70, pl. 25, fig.
3a, 3c.
Trenton limestone Middleville, Herkimer co. N. Y.

Streptelasma profundum Hall

- 327 $\frac{3764}{1}$ **TYPE** Streptelasma profunda Hall. Paleon-
tology of New York. 1847. 1: 49, pl. 12, fig. 4a.
Lowville limestone East Canada creek,
Herkimer co. N. Y.

- 328 $\frac{3764}{2}$ TYPE Hall. Paleontology of New York. 1847. pl. 12,
fig. 4b.
Lowville limestone East Canada creek
- 329 $\frac{3764}{3}$ TYPE Hall. Paleontology of New York. 1847. pl. 12,
fig. 4d.
Lowville limestone East Canada creek
- 330 $\frac{3764}{4}$ TYPE Hall. Paleontology of New York. 1847. pl. 12,
fig. 4e.
Lowville limestone East Canada creek
Streptelasma (Petraia) stricta see *Enterolasma strictum*
Streptelasma strictum see *Enterolasma strictum*.

STROMATOPORA Goldfuss

Stromatopora expansa Hall & Whitfield

- 331 $\frac{3780}{1}$ TYPE *Stromatopora expansa* Hall & Whitfield.
23d annual report of the New York state cabinet of natural
history. 1873. p. 226, pl. 9, fig. 1.
Upper Devonic Lime creek, near Rockford Ia.
R. P. Whitfield, coll. 1866

Stromatopora (Caenostroma) incrustans Hall & Whitfield

- 332 $\frac{3781}{1}$ TYPE *Stromatopora (Caenostroma) incrustans* Hall & Whitfield. 23d annual report of the New
York state cabinet of natural history. 1873. p. 227, pl. 9,
fig. 3.
Upper Devonic Marly beds at Hackberry Grove
near Rockford Ia.
R. P. Whitfield, coll. 1866

Stromatopora (Caenostroma) solidula Hall & Whitfield

- 333 $\frac{3782}{1}$ TYPE *Stromatopora (Caenostroma) solidula*
Hall & Whitfield. 23d annual report of the New York
state cabinet of natural history. 1873. p. 227, pl. 9, fig. 4.
Upper Devonic Marly beds at Hackberry Grove
near Rockford Ia.
R. P. Whitfield, coll. 1866
Strombodes ? rectus see *Stereolasma rectum*.

SYNAPTOPHYLLUM Simpson

Synaptophyllum baculoideum Simpson

- 334 $\frac{3800}{1}$ TYPE *Synaptophyllum baculoideum* Simpson.
New York state museum bulletin 39. 1900. p. 213, fig. 35.
Onondaga limestone Leroy, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

- 335 $\frac{3800}{2}$ TYPE Simpson. New York state museum bulletin 39.
1900. p. 213, fig. 36.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Synaptophyllum segregatum Simpson

- 336 $\frac{3801}{1}$ TYPE *Synaptophyllum segregatum* Simpson.
New York state museum bulletin 39. 1900. p. 213, fig. 37.
Onondaga limestone Clarksville, Albany co. N. Y.

Synaptophyllum simcoense Billings (sp.)

- 337 $\frac{3802}{1}$ HYPOTYPE *Eridophyllum simcoense* Billings.
Canadian journal. 1859. 4:132.
Synaptophyllum simcoense Simpson. New
York state museum bulletin 39. 1900. p. 213, fig. 33.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

- 338 $\frac{3802}{2}$ HYPOTYPE Simpson. New York state museum bul-
letin 39. 1900. p. 213, fig. 34.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

TETRADIUM Dana

Tetradium cellulsum Hall (sp.)

- 339 $\frac{3820}{1}$ TYPE *Phytopsis cellulsum* Hall. Paleontology
of New York. 1847. 1:39, pl. 9, fig. 1b.
Lowville limestone Fort Plain N. Y.
Triplophyllum dalii see *Triplophyllum nodu-*
losum

TRIPLOPHYLLUM Simpson

Triplophyllum nodulosum Rominger (sp.)

- 340 $\frac{3840}{1}$ HYPOTYPE *Zaphrentis nodulosa* Rominger.
Geological survey of Michigan. 1876. v. 3, pt 2, p. 148.
Triplophyllum dalii Simpson. New York
state museum bulletin 39. 1900. p. 209, fig. 26.
Onondaga limestone Kinderhook group Burlington Ia.

Triplophyllum terebratum Hall (sp.)

- 341 $\frac{3841}{1}$ TYPE *Zaphrentis terebrata* Hall. 12th annual report of the Indiana state geologist. 1883. p. 316, pl. 23, fig. 5.

Triplophyllum terebratum. New York state museum memoir (unpublished). pl. 11, fig. 17, 18, 19.

Onondaga limestone

Falls of the Ohio, Ky.

VERMIPORA Hall

Vermipora robusta Hall

- 342 $\frac{3860}{1}$ TYPE *Vermipora robusta* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 144.

Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 32.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 32.

Helderbergian

Schoharie N. Y.

- 343 $\frac{3860}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 33.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 33.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

Vermipora serpuloides Hall

- 344 $\frac{3861}{1}$ TYPE *Vermipora serpuloides* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 110.

Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 26.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 26.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

- 345 $\frac{3861}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 27.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 27.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

- 346 $\frac{3861}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 29.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 29.

New Scotland beds Near Clarksville, Albany co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 347 $\frac{3861}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 30.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 30.

Helderbergian Schoharie N. Y.

- 348 $\frac{3861}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 31.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 2, fig. 31.

Helderbergian Schoharie N. Y.

Vermipora streptocoelia Clarke

- 349 $\frac{3862}{1}$ TYPE: PLASTOTYPE *Vermipora streptocoelia* Clarke. New York state museum memoir 3. 1900. p. 63, pl. 9, fig. 7.

Oriskanian Becraft mountain, Hudson N. Y.

- 350 $\frac{3862}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 9, fig. 8.

Oriskanian Becraft mountain, Hudson N. Y.

ZAPHRENTIS Rafinesque

Zaphrentis ampla Hall

- 351 $\frac{3880}{1}$ TYPE *Zaphrentis ampla* Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 21, fig. 1.

New York state museum memoir (unpublished). pl. 5, fig. 11.

Hamilton beds Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1865

- 352 $\frac{3880}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 21, fig. 2.

New York state museum memoir (unpublished). pl. 5, fig. 9.

Hamilton beds York, Livingston co. N. Y.

C. Van Deloo, coll. 1865

Zaphrentis complanata Hall.

- 353 $\frac{3881}{1}$ TYPE *Zaphrentis complanata* Hall. Fossil corals of the Niagara and upper Helderberg groups. 1882. p. 26.

Hall. 35th annual report of the New York state museum of natural history. 1884. pl. 28, fig. 1.

New York state museum memoir (unpublished). pl. 7, fig. 20.

Onondaga limestone Leroy, Genesee co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Zaphrentis conigera *see* *Scenophyllum conigerum*

Zaphrentis ? dissimilis Hall

- 354 $\frac{3882}{1}$ TYPE *Streptelasma dissimilis* Hall. 35th annual report of the New York state museum of natural history. 1884. p. 421, pl. 23, fig. 3, 4.

Zaphrentis ? dissimilis New York state museum memoir (unpublished). pl. 2, fig. 31, 32.

Schoharie grit Clarksville, Albany co. N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

Zaphrentis fastigata Hall

- 355 $\frac{3883}{1}$ TYPE *Zaphrentis fastigata* Hall. Descriptions of fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 30.

Zaphrentis fastigata Hall. 35th annual report of the New York state museum of natural history. 1884. p. 434.

Onondaga limestone Leroy N. Y.

Zaphrentis halli Milne-Edwards & Haime

- 356 $\frac{3884}{1}$ HYPOTYPE *Zaphrentis halli* Milne-Edwards & Haime. Monographie des polypiers fossiles des terrains Palaeozoiques. 1851. p. 341.

Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 20, fig. 9.

New York state museum memoir (unpublished). pl. 6, fig. 10.

Hamilton beds Skaneateles lake N. Y.

Zaphrentis herzeri *see* *Kionelasma herzeri*

Zaphrentis nodulosa *see* *Triplophyllum nodulosum*

Zaphrentis roemeri Milne-Edwards & Haime

- 357 $\frac{3885}{1}$ HYPOTYPE *Zaphrentis roemeri* Milne-Edwards & Haime. Monographie des polypiers fossiles des terrains Palaeozoiques. 1851. p. 341.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 1, fig. 14.

New York state museum memoir (unpublished). pl. 2, fig. 22.

New Scotland beds Clarksville, Albany co. N. Y.

Zaphrentis sentosa Hall

- 358 $\frac{3886}{1}$ TYPE *Zaphrentis sentosa* Hall. Fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 32. (not figured)

Hall. 35th annual report of the New York state museum of natural history. 1884. p. 436. (not figured)

New York state museum memoir (unpublished). pl. 4, fig. 52, 53.

Onondaga limestone

Cayuga Ont.

C. D. Walcott, coll. 1878

- 359 $\frac{3886}{2}$ TYPE Hall. Fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 32. (not figured)

Hall. 35th annual report of the New York state museum of natural history. 1884. p. 436. (not figured)

New York state museum memoir (unpublished). pl. 4, fig. 51.

Onondaga limestone

Walpole Ont.

C. D. Walcott, coll. 1878

Zaphrentis simplex Hall

- 360 $\frac{3887}{1}$ TYPE *Strombodes simplex* Hall. Geology of New York; report on the 4th district. 1843. p. 209, fig. 6.

Zaphrentis simplex Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 21, fig. 8.

Hamilton beds

Moscow, Livingston co. N. Y.

Geological survey collection

Zaphrentis tabulata Hall

- 361 $\frac{3888}{1}$ TYPE *Zaphrentis tabulata* Hall. Descriptions of fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 27.

Hall. 35th annual report of the New York state museum of natural history. 1884. pl. 29, fig. 3, 4.

New York state museum memoir (unpublished). pl. 6, fig. 7, 8.

Onondaga limestone Falkirk, Erie co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Zaphrentis terebrata see *Triplophyllum terebratum*

ECHINODERMATA

Actinocrinus eucharis see *Gennaeocrinus eucharis*

Actinocrinus nyssa see *Gennaeocrinus nyssa*

Actinocrinus tenuiradiatus see *Palaeocystites tenuiradiatus*

AGELACRINITES Vanuxem

Agelacrinites hamiltonensis Vanuxem

362 $\frac{4000}{1}$ TYPE: PLASTOTYPE *Agelacrinites hamiltonensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 158, p. 306, fig. 80.

Agelacrinites hamiltonensis Hall. 24th annual report on the New York state cabinet of natural history. 1872. pl. 6, fig. 14, 15.

Hamilton beds Hamilton, Madison co. N. Y.

Geological survey coll.

Agelacrinites kaskaskiensis Hall

363 $\frac{4001}{1}$ PLASTOTYPE *Agelacrinites kaskaskiensis* Hall. Geology of Iowa. 1858. v. 1, pt 2, p. 696, pl. 25, fig. 18.

Kaskaskia limestone

Kaskaskia Ill.

AMPHERISTOCRINUS Hall

Ampheristocrinus typus Hall

364 $\frac{4010}{1}$ TYPE *Ampheristocrinus typus* Hall. Transactions of the Albany institute. 1879. 10:11 (abstract)

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 17, 18.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

AOROCRINUS Wachsmuth & Springer**Aorocrinus? cauliculus** Hall (sp.)

- 365 $\frac{4020}{1}$ TYPE *Actinocrinus cauliculus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 132.

Hamilton shales Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 366 $\frac{4020}{2}$ TYPE Hall. 15th annual report of New York state cabinet of natural history. 1862. p. 132.

Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 367 $\frac{4020}{3}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 132.

Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

Aorocrinus? pocillum Hall (sp.)

- 368 $\frac{4021}{1}$ TYPE *Actinocrinus pocillum* Hall. 15th annual report of the New York state museum of natural history. 1862. p. 134.

Hamilton shales Cashong creek, near Bellona N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 369 $\frac{4021}{2}$ TYPE Hall. 15th annual report of the New York state museum of natural history. 1862. p. 134.

Hamilton shales Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Aorocrinus? praecursor Hall (sp.)

- 370 $\frac{4023}{1}$ TYPE *Actinocrinus praecursor* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 131.

Hamilton shales Canandaigua lake shore N. Y.
C. A. White and C. Van Deloo, coll. 1860

ARACHNOCRINUS Meek & Worthen**Arachnocrinus bulbosus** Hall (sp.)

- 371 $\frac{4040}{1}$ TYPE *Cyathocrinus bulbosus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 123, pl. 1, fig. 21.

Onondaga limestone Livingston co. N. Y.

ASPIDOCRINUS Hall

Aspidocrinus digitatus Hall

- 372 $\frac{4090}{1}$ TYPE *Aspidocrinus digitatus* Hall. Paleontology of New York. 1859. 3:123, pl. 5, fig. 19, 20.
New Scotland beds Schoharie N. Y.

BRACHIOCRINUS Hall

Brachiocrinus nodosarius Hall

- 373 $\frac{4090}{1}$ TYPE *Brachiocrinus nodosarius* Hall. Paleontology of New York. 1859. 3:118, pl. 5, fig. 5.
New Scotland beds Schoharie N. Y.

J. Gebhard purchase

- 374 $\frac{4090}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 6, fig. 1.

New Scotland beds Schoharie N. Y.

J. Gebhard purchase

Cacabocrinus troosti see *Dolatocrinus troosti*

CAMAROCCRINUS Hall

Camarocrinus stellatus Hall

- 375 $\frac{4100}{1}$ TYPE *Camarocrinus stellatus* Hall. 28th annual report of the New York state museum of natural history. 1879. p. 207, pl. 35, fig. 3, 4, 7.

Manlius limestone Schoharie N. Y.

J. Gebhard purchase

- 376 $\frac{4100}{2}$ TYPE Hall. 28th annual report of the New York state museum of natural history. 1879. pl. 35, fig. 1, 2, 5, 6.

Manlius limestone Schoharie N. Y.

J. Gebhard purchase

- 377 $\frac{4100}{3}$ TYPE Hall. 28th annual report of the New York state museum of natural history. 1879. pl. 35, fig. 8.

Manlius limestone Schoharie N. Y.

J. Gebhard purchase

CODASTER McCoy

Codaster pentalobus Hall

- 378 $\frac{4110}{1}$ TYPE *Codaster pentalobus* Hall. Transactions of the Albany institute. 1879. 10:13 (abstract)

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 16.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Codaster pulchellus Miller & Dyer

- 379 $\frac{4111}{1}$ HYPOTYPE *Codaster pulchellus* Miller & Dyer.
Journal of the Cincinnati society of natural history. 1878.
1:35.

Codaster (*Stephanocrinus*?) *pulchellus*
Hall. 11th annual report of the Indiana state geologist.
1882. pl. 15, fig. 8, 9.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 380 $\frac{4111}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana
state geologist. 1882. pl. 15, fig. 10.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo 1878

CORONOCRINUS Hall**Coronocrinus polydactylus** Hall

- 381 $\frac{4120}{1}$ TYPE *Coronocrinus polydactylus* Hall. Pale-
ontology of New York. 1859. 3:124, pl. 6, fig. 4, 5.
New Scotland beds Schoharie N. Y.

Cyathocrinus bulbosus see *Arachnocrinus*
bulbosus

DENDROCRINUS Hall**Dendrocrinus ancilla** Hall

- 382 $\frac{4130}{1}$ TYPE *Dendrocrinus ancilla* Hall. Transactions
of the Albany institute. 1879. 10:9 (abstract)
Hall. 11th annual report of the Indiana state geologist.
1882. pl. 15, fig. 19.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

DOLATOCRINUS Lyon**Dolatocrinus troosti** Hall (sp.)

- 383 $\frac{4140}{1}$ TYPE *Cacabocrinus troosti* Hall. 15th annual
report of the New York state cabinet of natural history.
1862. p. 138.

Hamilton shales

Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 384 $\frac{4140}{2}$ TYPE Hall. 15th annual report of the New York state
cabinet of natural history. 1862. p. 138.

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 385 $\frac{4140}{3}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 386 $\frac{4140}{4}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales near Vincent N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 387 $\frac{4140}{5}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 388 $\frac{4140}{6}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 389 $\frac{4140}{7}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 390 $\frac{4140}{8}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 391 $\frac{4140}{9}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 392 $\frac{4140}{10}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 393 $\frac{4140}{11}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 394 $\frac{4140}{12}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 395 $\frac{4140}{13}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 396 $\frac{4140}{14}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 397 $\frac{4140}{15}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- Echinus drydenensis* see *Eocidaris drydenensis*

EDRIOCRINUS Hall

Edriocrinus becraftensis Clarke

- 398 $\frac{4160}{1}$ TYPE: PLASTOTYPE *Edriocrinus becraftensis* Clarke. New York state museum memoir 3. 1900.
p. 62, pl. 9, fig. 12, 13.
Oriskanian Becraft mountain, Hudson N. Y.

ELEUTHEROCRINUS Shumard & Yandell

Eleutherocrinus whitfieldi Hall

- 399 $\frac{4180}{1}$ TYPE *Eleutherocrinus whitfieldi* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Canandaigua lake N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 400 $\frac{4180}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 401 $\frac{4180}{3}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 402 $\frac{4180}{4}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 403 $\frac{4180}{5}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p 151.

Hamilton shales Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 404 $\frac{4180}{6}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.

Hamilton shales Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 405 $\frac{4180}{7}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

EOCIDARIS Desor

Eocidaris drydenensis (Vanuxem) Hall

- 406 $\frac{4200}{1}$ TYPE *Echinus drydenensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 184 (not figured).

Eocidaris drydenensis Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 298 (not figured).

Portage (Ithaca) beds Dryden, Tompkins co. N. Y.

EUCALYPTOCRINUS Goldfuss

Eucalyptocrinus caelatus Hall

- 407 $\frac{4205}{1}$ HYPOTYPE *Eucalyptocrinus caelatus* Hall. Paleontology of New York. 1852. 2:210.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 2.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Eucalyptocrinus constrictus Hall

- 408 $\frac{4206}{1}$ TYPE *Eucalyptocrinus constrictus* Hall. Transactions of the Albany institute. 1879. 10:10.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 1.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

EUGASTER Hall

Eugaster logani Hall

- 409 $\frac{4210}{1}$ TYPE: PLASTOTYPE *Eugaster logani* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 290, pl. 9, fig. 7, 8.
 Hamilton beds Fenner, Madison co. N. Y.
 Geological survey collection

GENNAEOCRINUS Wachsmuth & Springer

Gennaeocrinus eucharis Hall (sp.)

- 410 $\frac{4220}{1}$ TYPE *Actinocrinus eucharis* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 130.
 Hamilton shales Cashong creek, near Bellona N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 411 $\frac{4220}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 130.
 Hamilton shales Vincent N. Y.
 C. A. White and C. Van Deloo, coll. 1860

Gennaeocrinus nyssa Hall sp.

- 412 $\frac{4221}{1}$ TYPE *Actinocrinus nyssa* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 129.
 Hamilton shales Vincent N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 413 $\frac{4221}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 129.
 Hamilton shales Vincent N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 414 $\frac{4221}{3}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 129.
 Hamilton shales Fall brook, Livingston co. N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 415 $\frac{4221}{4}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 129.
 Hamilton shales Fall brook N. Y.
 C. A. White and C. Van Deloo, coll. 1860

GILBERTSOCRINUS Phillips

Gilbertsocrinus spinigerus Hall (sp.)

- 416 $\frac{4240}{1}$ TYPE *Trematocrinus spinigerus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 128.

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 417 $\frac{4240}{2}$ TYPE *Gilbertsocrinus* (*Trematocrinus*) *spinigerus* Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 9.¹

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

ICHTHYOCRINUS Conrad

Ichthyocrinus subangularis Hall

- 418 $\frac{4250}{1}$ HYPOTYPE *Ichthyocrinus subangularis* Hall. Transactions of the Albany institute. 1863. 4:7.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 12.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, 1878

- 419 $\frac{4250}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana state geologist. pl. 15, fig. 13.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 420 $\frac{4250}{3}$ HYPOTYPE Hall. 28th annual report of the New York state museum of natural history. 1879. pl. 16, fig. 11, 12.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 16, fig. 11, 12.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

¹In the journal of the Boston society of natural history for 1861 (art. 4, p. 261-325) Prof. Hall published without illustrations a paper entitled *Descriptions of new species of Crinoidea from the Carboniferous rocks of the Mississippi valley*. Separate copies of this paper bound up with 7 photographic plates of crinoids and explanatory matter were circulated in 1872. These plates were lettered "State mus. nat. hist. bull. 1" and consisted chiefly of figures of Carbonic crinoids, but carried a number of Devonian species; the latter not referred to in the text.

LECANOCRINUS Hall

Lecanocrinus pusillus Hall

- 421 $\frac{4260}{1}$ TYPE *Cyathocrinus pusillus* Hall. Transactions of the Albany institute. 1863. 4:6.

Lecanocrinus pusillus Hall. 28th annual report of the New York state museum of natural history. 1879. pl. 15, fig. 1, 5.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 14, fig. 1, 5.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 422 $\frac{4260}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 7.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

LEPADOCRINUS Conrad

Lepadocrinus gebhardi Conrad (sp.)

- 423 $\frac{4270}{1}$ HYPOTYPE *Lepocrinites gebhardi* Conrad. Annual report on the paleontology of New York. 1840. p. 207.

Lepadocrinus gebhardi Hall. Paleontology of New York. 1859. v. 3, pl. 7, fig. 1-4.

Coeymans limestone

Schoharie N. Y.

- 424 $\frac{4270}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 7, fig. 7.

Coeymans limestone

Schoharie N. Y.

LEPIDECHINUS Hall

Lepidechinus rarispinus Hall

- 425 $\frac{4280}{1}$ PLASTOTYPE *Lepidechinus rarispinus* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 295, pl. 9, fig. 10.

Waverly beds Meadville Pa. (or Licking county, O.)

Lepocrinites gebhardi see *Lepadocrinus gebhardi*

MACROSTYLOCRINUS Hall

Macrostylocrinus striatus var. **granulosus** Hall

- 426 $\frac{4290}{1}$ TYPE *Macrostylocrinus striatus* var. *granulosus* Hall. 28th annual report of the New York state museum of natural history. 1879. p. 129.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

MARIACRINUS^S Hall**Mariacrinus macropetalus** Hall

- 427 $\frac{4300}{1}$ HYPOTYPE *Mariacrinus macropetalus* Hall. Paleontology of New York. 1859. 3: 111, pl. 3A, fig. 10. Becraft limestone Schoharie N. Y.

- 428 $\frac{4300}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 3B, fig. 2.

Becraft limestone

Schoharie N. Y.

J. Gebhard purchase

Mariacrinus plumosus Hall

- 429 $\frac{4301}{1}$ TYPE *Mariacrinus plumosus* Hall. Paleontology of New York. 1859. 3: 110, pl. 3, fig. 6.

Coeymans limestone

Wheelock's hill, Litchfield

Herkimer co. N. Y.

Mariacrinus ramosus Hall

- 430 $\frac{4302}{1}$ TYPE *Mariacrinus ramosus* Hall. Paleontology of New York. 1859. 3: 147, pl. 2, fig. 6.

Coeymans limestone

Wheelock's hill, Litchfield

Herkimer co. N. Y.

Mariacrinus stoloniferus Hall

- 431 $\frac{4303}{1}$ HYPOTYPE *Mariacrinus stoloniferus* Hall. Paleontology of New York. 1859. 3: 112, pl. 3A, fig. 4. New Scotland beds Schoharie N. Y.

MEGISTOCRINUS Owen & Shumard

Megistocrinus depressus Hall

- 432 $\frac{4320}{1}$ TYPE *Megistocrinus depressus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 134.

Hamilton shales

Canandaigua lake N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 433 $\frac{4320}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 134.

Hamilton shales

Canandaigua lake N. Y.

- 434 $\frac{4320}{3}$ **HYPOTYPE** Wachsmuth & Springer. North American Crinoidea Camerata. 1897. 2: 540, pl. 49, fig. 4a. (Museum of comparative zoology memoir. 1897. v. 21)
Hamilton shales Canandaigua lake N. Y.
Clarke collection purchased
- 435 $\frac{4320}{4}$ **HYPOTYPE** Wachsmuth & Springer. North American Crinoidea Camerata. 1897. 2: 540, pl. 49, fig. 4c. (Museum of comparative zoology memoir. 1897. v. 21)
Hamilton shales Canandaigua lake N. Y.
Clarke collection purchased

Megistocrinus ontario Hall

- 436 $\frac{4321}{1}$ **TYPE** *Megistocrinus ontario* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 136.
Hamilton shales Near Dresden, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 437 $\frac{4321}{2}$ **TYPE** Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 136.
Hamilton shales Western New York
C. A. White, coll. 1860

MELOCRINUS Goldfuss

Melocrinus carleyi Hall

- 438 $\frac{4330}{1}$ **HYPOTYPE** *Glyptocrinus carleyi* Hall. Transactions of the Albany institute. 1863. 4: 9.
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 5.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1898

Melocrinus clarkei (Hall mss.) Williams

- 439 $\frac{4340}{1}$ **TYPE** *Melocrinus clarkei* (Hall mss.) Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 31.
Genesee shale Bell's gully, Canandaigua lake N. Y.
J. M. Clarke, donor

Melocrinus gracilis Wachsmuth & Springer

- 440 $\frac{4341}{1}$ **TYPE** *Melocrinus gracilis* Wachsmuth & Springer. North American Crinoidea Camerata. 1897. 1: 298, pl. 22, fig. 5. (Museum of comparative zoology memoir. 1897. v. 20)
Hamilton shales Canandaigua lake N. Y.
Clarke collection purchased

NUCLEOCRINUS Conrad

Nucleocrinus lucina Hall

- 441 $\frac{4360}{1}$ TYPE *Nucleocrinus lucina* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 148.

Hamilton shales Cashong creek, near Bellona N. Y.
C. A. White and C. Van Deloo, 1860

- 442 $\frac{4360}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 148.

Hamilton shales Canandaigua lake N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858

- 443 $\frac{4360}{3}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 148.

Hamilton shales Cashong creek, near Bellona N. Y.
C. A. White and C. Van Deloo, coll. 1860

PALAEOCYSTITES Billings

Palaeocystites tenuiradiatus Hall (sp.)

- 444 $\frac{4380}{1}$ TYPE *Actinocrinus tenuiradiatus* Hall. Paleontology of New York. 1847. 1: 18, pl. 4, fig. 8.

Chazy limestone Chazy, Clinton co. N. Y.

PAROPSONEMA Clarke

Paropsonema cryptophya Clarke

- 445 $\frac{4400}{1}$ TYPE: PLASTOTYPE *Paropsonema cryptophya* Clarke. New York state museum bulletin 39. 1900. p. 172, pl. 6, fig. 1; pl. 7, fig. 1.

Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897

- 446 $\frac{4400}{2}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 8, fig. 1.

Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897

- 447 $\frac{4400}{3}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 8, fig. 2.

Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897

On slab with type of pl. 6, fig. 1.

- 448 $\frac{4400}{4}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 9, fig. 1.

Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897

- 449 $\frac{4400}{5}$ TYPE Clarke. New York state museum bulletin 39. 1900.
pl. 9, fig. 2.
Portage sandstone Naples N. Y.

D. D. Luther coll. 1897

- 450 $\frac{4400}{6}$ TYPE Clarke. New York state museum bulletin 39. 1900.
pl. 9, fig. 3.
Portage sandstone Naples N. Y.

D. D. Luther coll. 1897

PENTREMITES Say

Pentremites leda Hall

- 451 $\frac{4420}{1}$ TYPE *Pentremites leda* Hall. 15th annual report
of the New York state cabinet of natural history. 1862.
p. 149.

Hamilton shales Cashong creek, near Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 452 $\frac{4420}{2}$ TYPE Hall. 15th annual report of the New York state
cabinet of natural history. 1862. p. 149.

Hamilton shales near Alexander, Genesee co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

PERIECHOCRINUS Austin

Periechocrinus christyi Hall (sp.)

- 453 $\frac{4440}{1}$ HYPOTYPE *Saccocrinus christyi* Hall. Transac-
tions of the Albany institute. 1863. 4:2 (abstract).

Hall. 11th annual report of the Indiana state geologist.
1882. pl. 15, fig. 3.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1898

- 454 $\frac{4440}{2}$ HYPOTYPE *Saccocrinus christyi* Hall. 11th
annual report of the Indiana state geologist. 1882.
pl. 15, fig. 4.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

PLATYCRINUS Miller

Platycrinus eboraceus Hall

- 455 $\frac{4460}{1}$ TYPE *Platycrinus eboraceus* Hall. 15th annual
report of the New York state cabinet of natural history.
1862. p. 132.

Hamilton shales

York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 456 $\frac{4460}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 132.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

POTERIOCRINUS Miller

Poteriocrinus ? calyx Hall

- 457 $\frac{4470}{1}$ TYPE Poteriocrinus ? calyx Hall. Transactions of the Albany institute. 1879. 10:10 (abstract).
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 14.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Poteriocrinus clarkei Williams

- 458 $\frac{4471}{1}$ TYPE Poteriocrinus clarkei Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 21.
Chemung group Haskinville, Steuben co. N. Y.
Clarke collection purchased
- 459 $\frac{4471}{2}$ TYPE Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 21.
Chemung group Haskinville N. Y.
Clarke collection purchased
- 460 $\frac{4471}{3}$ TYPE Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 21.
Chemung group Haskinville N. Y.
Clarke collection purchased

Poteriocrinus diffusus Hall

- 461 $\frac{4472}{1}$ TYPE Poteriocrinus diffusus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 121.
Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 1.¹
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 462 $\frac{4472}{2}$ TYPE Hall. New York state museum bulletin 1. 1872. pl. 1, fig. 2.¹
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

¹ See footnote on p. 71.

Poteriocrinus nereus Hall

- 463 $\frac{4473}{1}$ TYPE *Poteriocrinus nereus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 121.

Hamilton shales

Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Poteriocrinus nycteus Hall

- 464 $\frac{4474}{1}$ TYPE *Poteriocrinus nycteus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 120.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 3, 4.¹

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

PTILONASTER Hall**Ptilonaster princeps** Hall

- 465 $\frac{4480}{1}$ PLASTOTYPE *Ptilonaster princeps* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 292, pl. 9, fig. 9.

Portage (Ithaca) beds

Cortland N. Y.

H. S. Randall coll.

RHODOCRINUS Miller**Rhodocrinus (Acanthocrinus) gracilis** Hall

- 466 $\frac{4500}{1}$ TYPE *Rhodocrinus (Acanthocrinus) gracilis* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 7.¹

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

Rhodocrinus nodulosus Hall

- 467 $\frac{4501}{1}$ TYPE *Rhodocrinus (Acanthocrinus) nodulosus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 126.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 8.¹

¹ See footnote on p. 71.

Rhodocrinus nodulosus Wachsmuth & Springer. North American Crinoidea Camerata. 1897. v. 1, pl. 13, fig. 8. (Museum of comparative zoology memoir. 1897. v. 20)

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 468 $\frac{4501}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 126.

Hamilton beds

Bristol, Ontario co. N. Y.

C. A. White, coll. 1860

***Rhodocrinus spinosus* Hall**

- 469 $\frac{4502}{1}$ TYPE *Rhodocrinus spinosus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 10.¹

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 470 $\frac{4502}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 471 $\frac{4502}{3}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 472 $\frac{4502}{4}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hamilton shales

Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

SCHIZOCRINUS Hall

***Schizocrinus nodosus* Hall**

- 473 $\frac{4520}{1}$ TYPE *Schizocrinus nodosus* Hall. Paleontology of New York. 1847. 1:81, pl. 27, fig. 1a.

Trenton limestone

Glens Falls N. Y.

¹ See footnote on p. 71.

STENASTER Billings

Stenaster salteri Billings

- 474 $\frac{4540}{1}$ PLASTOTYPE *Stenaster salteri* Billings. Canadian organic remains. 1858. Decade 3, p. 78, pl. 10, fig. 1a, 1b.
Trenton limestone Belleville Ont.

THYLACOCRINUS Oehlert

Thylacocrinus clarkei Wachsmuth & Springer

- 475 $\frac{4560}{1}$ TYPE *Thylacocrinus clarkei* Wachsmuth & Springer. North American Crinoidea Camerata. 1897. 1:248, pl. 13, fig. 11a, b. (Museum of comparative zoology memoir. 1897. v. 20)

Hamilton shales

Canandaigua lake N. Y.

Clarke collection purchased

Trematocrinus spinigerus see *Gilbertsocrinus spinigerus*.

VERMES

ARABELLITES Hinde

Arabellites (sp.)

- 476 $\frac{5000}{1}$ HYPOTYPE *Arabellites* sp. Clarke. 6th annual report of the New York state geologist. 1887. p. 30, pl. A1, fig. 23.

Hamilton beds

Canandaigua N. Y.

J. M. Clarke purchase

- 477 $\frac{5000}{2}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 24.

Marcellus shale

Canandaigua N. Y.

J. M. Clarke purchase

- 478 $\frac{5000}{3}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 25.

Hamilton beds

Canandaigua N. Y.

J. M. Clarke purchase

- 479 $\frac{5000}{4}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 26.

Hamilton beds

Canandaigua N. Y.

J. M. Clarke purchase

- 480 $\frac{5000}{5}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 27.

Hamilton beds

Canandaigua N. Y.

J. M. Clarke purchase

Aulopora? *Cornulites* see *Cornulites modestus*

AUTODETUS Lindström

Autodetus beecheri Clarke

- 481 $\frac{5020}{1}$ HYPOTYPE *Autodetus beecheri* Clarke. American geologist. 1894. 13:334.
New York state museum memoir 3. 1900. p. 26, pl. 2, fig. 27.
Oriskanian Becraft mountain, Hudson N. Y.
- 482 $\frac{5020}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 28.
Oriskanian Becraft mountain, Hudson N. Y.
- 483 $\frac{5020}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 29.
Oriskanian Becraft mountain, Hudson N. Y.
- 484 $\frac{5020}{4}$ TYPE Clarke. American geologist. 1894. 13:331, fig. 9.
New York state museum memoir 3. 1900. pl. 2, fig. 30.
Oriskanian Becraft mountain, Hudson N. Y.
- 485 $\frac{5020}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 31.
Oriskanian Becraft mountain, Hudson N. Y.
- 486 $\frac{5020}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 32.
Oriskanian Becraft mountain, Hudson N. Y.

Autodetus lindstroemi Clarke

- 487 $\frac{5021}{1}$ TYPE *Autodetus lindstroemi* Clarke. American geologist. 1894. 13:334, fig. 4, 5, 6.
Hamilton shales Tichenor's, Canandaigua lake, N. Y.
J. M. Clarke, donor

CLATHROCOELIA Hall

"Clathrocoelia eborica" Hall

(=wing of *Actinopteria decussata* Hall)

- 488 $\frac{5040}{1}$ TYPE *Clathrocoelia eborica* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 204, pl. 32, fig. 10; pl. 32A, fig. 28.
Hamilton beds Alden, Erie co, N. Y.
C. Van Deloo, coll. 1874
- 489 $\frac{5040}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 29.
Hamilton beds Darien, Genesee co, N. Y.

COLEOLUS Hall

Coleolus acicula Hall

- 490 $\frac{5060}{1}$ HYPOTYPE *Orthoceras aciculum* Hall. Geology of New York; report on the 4th district. 1843. p. 243.
Coleolus aciculum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 11.
 Genesee slate Bristol Center, Ontario co. N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1862
- 491 $\frac{5060}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 13.
 Genesee slate Bristol Center, Ontario co. N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1862
- 492 $\frac{5060}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 14.
 Portage (Naples) beds Mount Morris, Livingston co. N. Y.
 C. Van Deloo, coll.
- 493 $\frac{5060}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 15.
 Portage (Ithaca) beds Ithaca N. Y.
 J. W. Hall and G. B. Simpson, coll. 1870
- 494 $\frac{5060}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 16.
 Marcellus shale Schoharie county, N. Y.
 J. Gebhard purchase

Coleolus (Dentalium?) aciculatus Hall

- 495 $\frac{5061}{1}$ TYPE *Dentalium aciculatum* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 107.
Coleolus (Dentalium?) aciculatus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 18.
 Marcellus shale Manlius, Onondaga co. N. Y.

Coleolus ? gracilis Hall

- 496 $\frac{5062}{1}$ TYPE *Coleolus? gracilis* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 190, pl. 32A, fig. 19.
 Chemung beds Nichols, Tioga co. N. Y.
 A. Sherwood, coll. 1871

Coleolus crenatocinctus Hall

- 497 $\frac{5063}{1}$ TYPE *Coleolus crenatocinctum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 188, pl. 32, fig. 1.
Onondaga limestone Jamesville, Onondaga co. N. Y.
C. A. White, coll. 1860
On slab with type of *Bellerophon hyalina*. Pal. N. Y.
1879. v. 5, pt 2, pl. 26, fig. 4.
- 498 $\frac{5063}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 4.
Hamilton beds Hamburg, Erie co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1865

Coleolus tenuicinctus Hall

- 499 $\frac{5064}{1}$ TYPE *Coleoprion tenuicinctum* Hall. Illustrations of Devonian fossils. 1876. Explanation of pl. 27.
Coleolus tenuicinctum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 5.
Hamilton beds Sherburne creek, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 500 $\frac{5064}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 27, fig. 1, 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 8, 9.
Hamilton beds Norton's landing, Cayuga lake N. Y.
H. H. Smith, coll. 1871
- 501 $\frac{5064}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 27, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 6; pl. 32A, fig. 9.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871
- 502 $\frac{5064}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 27, fig. 3.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 7.
Hamilton beds Norton's landing, Cayuga lake N. Y.
H. H. Smith, coll. 1871
- 503 $\frac{5064}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 6, 7.
Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

- 504 $\frac{5064}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 8.

Hamilton beds

Fultonham N. Y.

W. M. Gabb, coll. 1857

Coleoprion tenuicinctum see *Coleolus tenuicinctus*

CORNULITES Schlotheim

Cornulites cingulatus Hall

- 505 $\frac{5080}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Cornulites cingulatus* Hall. Paleontology of New York. 1888. supplement v. 5, pt 2, p. 20.

Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 35.

Oriskanian

Becraft mountain, Hudson N. Y.

- 506 $\frac{5080}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 36.

Oriskanian

Becraft mountain, Hudson N. Y.

- 507 $\frac{5080}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 37.

Oriskanian

Becraft mountain, Hudson N. Y.

- 508 $\frac{5080}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 38.

Oriskanian

Becraft mountain, Hudson N. Y.

Cornulites modestus Hall & Simpson

- 509 $\frac{5081}{1}$ TYPE *Aulopora*? *Cornulites* Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 21, 22.

Cornulites modestus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 21, 22.

New Scotland beds Near Clarksville, Albany co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Trematopora regularis*, Pal. N. Y. v. 6, pl. 11, fig. 2.

Cornulites tribulis Hall

- 510 $\frac{5082}{1}$ TYPE *Cornulites tribulis* Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), p. 20, pl. 116, fig. 30.

Hamilton beds

Hopewell, Ontario co. N. Y.

J. M. Clarke purchase

Cornulites proprius Hall

- 511 $\frac{5083}{1}$ **HYPOTYPE** *Cornulites proprius* Hall. 28th annual report of the New York state museum of natural history. 1876. p. 182.
Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 4.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 512 $\frac{5083}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 7.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 513 $\frac{5083}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 8.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878.
- 514 $\frac{5083}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 19.
Niagaran Waldron Ind.
C. Van Deloo, coll. 1878

Cornulites richmondensis Miller (sp.)

- 515 $\frac{5084}{1}$ **HYPOTYPE** *Tentaculites richmondensis* Miller. Cincinnati quarterly journal of science. 1874. 1:234.
Cornulites richmondensis Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 115, fig. 37.
Richmond beds Richmond Ind.

Cornulites sterlingensis Meek & Worthen (sp.)

- 516 $\frac{5085}{1}$ **HYPOTYPE** *Tentaculites sterlingensis* Meek & Worthen. Proceedings of the Academy of natural sciences of Philadelphia. 1865. p. 255.
Cornulites sterlingensis Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 115, fig. 5.
Lorraine beds Cincinnati O.
Dentalium aciculatum see *Coleolus* (*Dentalium*?) *aciculatus*

EOPOLYCHAETUS Ruedemann

Eopolychaetus albaniensis Ruedemann

- 517 $\frac{5100}{1}$ TYPE *Eopolychaetus albaniensis* Ruedemann.
New York state museum bulletin 42. 1901. p. 573, pl. 1,
fig. 13.

Utica shale

Rural cemetery, Albany N. Y.

J. M. Clarke and R. Ruedemann, coll. 1899

EUNICITES Ehlers

Eunicites sp.

- 518 $\frac{5120}{1}$ HYPOTYPE *Eunicites* ? Clarke. 6th annual report
of the New York state geologist. 1887. p. 30, pl. A1,
fig. 28.

Hamilton beds

Canandaigua N. Y.

J. M. Clarke purchase

OENONITES Hinde

Oenonites sp.

- 519 $\frac{5140}{1}$ HYPOTYPE *Oenonites* Clarke. 6th annual report
of the New York state geologist. 1887. p. 30, pl. A1,
fig. 29.

Hamilton beds

Canandaigua N. Y.

J. M. Clarke purchase

Orthoceras aciculum see *Coleolus acicula*

POLYGNATHUS Hinde

Polygnathus cristata Hinde

- 520 $\frac{5160}{1}$ HYPOTYPE *Polygnathus cristatus* Hinde. Quar-
terly journal of the Geological society. 1879. 35:366.

Clarke. 6th annual report of the New York state
geologist. 1887. pl. A1, fig. 20.

Portage (Naples) beds

Naples, Ontario co. N. Y.

J. M. Clarke purchase

Polygnathus dubia Hinde

- 521 $\frac{5161}{1}$ HYPOTYPE *Polygnathus dubius* Hinde. Quar-
terly journal of the Geological society. 1879. 35:362.

Clarke. 6th annual report of the New York state geolo-
gist. 1887. pl. A1, fig. 1.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

- 522 $\frac{5161}{2}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 2.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 523 $\frac{5161}{3}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 3.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 524 $\frac{5161}{4}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 4.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 525 $\frac{5161}{5}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 5.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 526 $\frac{5161}{6}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 6.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 527 $\frac{5161}{7}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 7.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 528 $\frac{5161}{8}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 8.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 529 $\frac{5161}{9}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 10.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 530 $\frac{5161}{10}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 12.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 531 $\frac{5161}{11}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 13.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

- 532 $\frac{5161}{12}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 14.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 533 $\frac{5161}{13}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 15.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 534 $\frac{5161}{14}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 16.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase
- 535 $\frac{5161}{15}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 19.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus pennata Hinde

- 536 $\frac{5162}{16}$ HYPOTYPE *Polygnathus pennatus* Hinde. Quarterly journal of the Geological society. 1879. 35:366.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 9.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus serrata Hinde

- 537 $\frac{5163}{17}$ HYPOTYPE *Polygnathus serratus* Hinde. Quarterly journal of the Geological society. 1879. 35:365.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 21.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus solida Hinde

- 538 $\frac{5164}{18}$ HYPOTYPE *Polygnathus solidus* Hinde. Quarterly journal of the Geological society. 1879. 35:365.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 11.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus tuberculata Hinde

- 539 $\frac{5165}{1}$ HYPOTYPE *Polygnathus tuberculatus* Hinde.
Quarterly journal of the Geological society. 1879. 35: 366.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 17.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

- 540 $\frac{5165}{2}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 18.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

Pontobdellopsis Ruedemann**Pontobdellopsis cometa** Ruedemann

- 541 $\frac{5180}{1}$ TYPE *Pontobdellopsis cometa* Ruedemann. New York state museum bulletin 42. 1901. p. 574, pl. 1, fig. 14.

Utica shale

Rural cemetery, Albany N. Y.

J. M. Clarke and R. Ruedemann, coll. 1899

- 542 $\frac{5180}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 15.

Utica shale

Rural cemetery, Albany N. Y.

J. M. Clarke and R. Ruedemann, coll. 1899

- 543 $\frac{5180}{3}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 16.

Utica shale

Rural cemetery, Albany N. Y.

J. M. Clarke and R. Ruedemann, coll. 1899

On slab with type of fig. 15, pl. 1.

- 544 $\frac{5180}{4}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 17.

Utica shale

Rural cemetery, Albany N. Y.

J. M. Clarke and R. Ruedemann, coll. 1899

On slab with type of fig. 15, pl. 1.

- 545 $\frac{5180}{5}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 18.

Utica shale

Rural cemetery, Albany N. Y.

J. M. Clarke and R. Ruedemann, coll. 1899

On slab with type of fig. 14, pl. 1.

PRIONIODUS Pander

Prioniodus spicatus Hinde

- 546 $\frac{5200}{1}$ HYPOTYPE *Prioniodus spicatus* Hinde. Quarterly journal of the Geological society. 1879. 35:361.
 Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 22.
 Portage (Naples) beds Naples N. Y.
 J. M. Clarke purchase

SCOLITHUS Haldeman

Scolithus linearis Hall

- 547 $\frac{5220}{1}$ TYPE *Scolithus linearis* Hall. Paleontology of New York. 1847. 1:2, pl. 1, fig. 1b.
 Potsdam sandstone Pennsylvania

SPIRORBIS Lamarck

Spirorbis assimilis Clarke

- 548 $\frac{5240}{1}$ TYPE: PLASTOTYPE *Spirorbis assimilis* Clarke. New York state museum memoir 3. 1900. p. 26, pl. 2, fig. 33.
 Oriskanian Becraft mountain, Hudson N. Y.
- 549 $\frac{5240}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 34.
 Oriskanian Becraft mountain, Hudson N. Y.

TENTACULITES Schlotheim

Tentaculites (?) acus Clarke

- 550 $\frac{5260}{1}$ TYPE *Tentaculites (?) acus* Clarke. New York state museum memoir 3. 1900. p. 28, pl. 3, fig. 1.
 Oriskanian Becraft mountain, Hudson N. Y.
- 551 $\frac{5260}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 2.
 Oriskanian Becraft mountain, Hudson N. Y.
- 552 $\frac{5260}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 3.
 Oriskanian Becraft mountain, Hudson N. Y.
- 553 $\frac{5260}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 4.
 Oriskanian Becraft mountain, Hudson N. Y.

- 554 $\frac{5260}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 5.
Oriskanian Becraft mountain, Hudson N. Y.
- 555 $\frac{5260}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 6.
Oriskanian Becraft mountain, Hudson N. Y.
- 556 $\frac{5260}{7}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 7.
Oriskanian Becraft mountain, Hudson N. Y.

Tentaculites bellulus Hall

- 557 $\frac{5280}{1}$ HYPOTYPE See *Tentaculites scalariformis* Hall.
Hypotype of illustrations of Devonian fossils. 1876.
pl. 26, fig. 11 and Paleontology of New York. 1879.
v. 5, pt 2, pl. 31, fig. 11.
Hamilton beds. Pratts falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1872
- 558 $\frac{5280}{2}$ TYPE *Tentaculites bellulus* Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 15, 16.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 15, 16.
Hamilton beds Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- 559 $\frac{5280}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 17, 18.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 17, 18.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871
- 560 $\frac{5280}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 51.
Hamilton beds Moscow N. Y.

Tentaculites elongatus Hall

- 561 $\frac{5281}{1}$ TYPE *Tentaculites elongatus* Hall. Paleontology of New York 1859. 3: 136, pl. 6, fig. 18.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase
- 562 $\frac{5281}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 8.
Oriskanian Becraft mountain, Hudson N. Y.

- 563 $\frac{5281}{3}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 3, fig. 9.
Oriskanian Becraft mountain, Hudson N. Y.
- 564 $\frac{5281}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 3, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.
- 565 $\frac{5281}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 3, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.
- 566 $\frac{5281}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 3, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

Tentaculites gracilistriatus Hall

- 567 $\frac{5282}{1}$ TYPE *Tentaculites gracilistriatus* Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 173,
pl. 31A, fig. 37.
Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860
- 568 $\frac{5282}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 38.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.
- 569 $\frac{5282}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 41.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.
- 570 $\frac{5282}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 43.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.
- 571 $\frac{5282}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 46.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

Tentaculites gyracanthus Eaton (sp.)

- 572 $\frac{5283}{1}$ HYPOTYPE *Echinus gyracanthus* Eaton. Geological textbook. 1832. p. 128.

Tentaculites gyracanthus Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 12.

Manlius limestone Schoharie, Schoharie co. N. Y.

- 573 $\frac{5283}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 13.

Manlius limestone Schoharie N. Y.

Tentaculites minutus Hall

- 574 $\frac{5284}{1}$ HYPOTYPE *Tentaculites minutus* Hall. Geology of New York; report on the 4th district. 1843. p. 72.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 1.

Clinton beds

Rochester N. Y.

Pickett collection

- 575 $\frac{5284}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 2.

Clinton beds

Rochester N. Y.

Pickett collection

On slab with type of pl. 114, fig. 1.

Tentaculites richmondensis see *Cornulites richmondensis*

Tentaculites scalariformis Hall

- 576 $\frac{5285}{1}$ HYPOTYPE *Tentaculites scalaris* (Schlotheim) Hall. Geology of New York; report on the 4th district. 1843. p. 172.

Tentaculites scalariformis Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 5, 6.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 20.

Onondaga limestone

Delaware O.

R. P. Whitfield, coll. 1865

- 577 $\frac{5285}{2}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
 pl. 26, fig. 7-9.
 Hall. Paleontology of New York. 1879. v. 5, pt 2,
 pl. 31, fig. 7-9.
 Onondaga limestone Delaware O.
 R. P. Whitfield, coll. 1865
- 578 $\frac{5285}{3}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
 pl. 26, fig. 10.
 Hall. Paleontology of New York. 1879. v. 5, pt 2,
 pl. 31, fig. 10.
 Onondaga limestone Delaware O.
 On slab with type of pl. 31, fig. 7-9.
 R. P. Whitfield, coll. 1865
- Tentaculites scalaris* *see* *Tentaculites scalariformis*
Tentaculites scalariformis *see* *Tentaculites bellulus* ($\frac{5280}{2}$)
Tentaculites sterlingensis *see* *Cornulites sterlingensis*

BRYOZOA**ACANTHOCLEMA** Hall**Acanthoclema alternatum** Hall

- 579 $\frac{6000}{1}$ **TYPE** *Trematopora alternata* Hall. Transactions of the Albany institute. 1881. 10:6 (abstract).
Acanthoclema alternatum Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 25, fig. 8-10.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 25, fig. 8-10
 Onondaga limestone Leroy, Genesee co. N. Y.
 C. D. Walcott and C. Van Deloo, 1877

Acanthoclema divergens Hall & Simpson

- 580 $\frac{6001}{1}$ **TYPE** *Trematopora* (?) sp. indt. Hall. 2d annual report of the New York state geologist. 1883. pl. 25; fig. 2.
Acanthoclema divergens Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 2.
 Onondaga limestone Onondaga Valley N. Y.

Acanthoclema hamiltonense Nicholson (sp.)

- 581 $\frac{6002}{1}$ HYPOTYPE *Ceriopora*? *hamiltonensis* Nicholson.
Geological magazine. 1874. 1:161.

Acanthoclema hamiltonense Hall & Simpson.
Paleontology of New York. 1887. v. 6, pl. 55,
fig. 18, 19.

Hamilton beds

West Williams Ont.

John De Cew, coll. 1865

On slab with *Rhombopora carinata*, Pal. N. Y. v. 6,
pl. 55, fig. 2; pl. 56, fig. 3.

- 582 $\frac{6002}{2}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 55, fig. 20.

Hamilton beds

West Williams Ont.

John De Cew, coll. 1865

- 583 $\frac{6002}{3}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 55, fig. 21.

Hamilton beds

Hamburg-on-the-Lake N. Y.

C. A. White, coll. 1860

- 584 $\frac{6002}{4}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 55, fig. 22.

Hamilton beds

Hamburg-on-the-Lake N. Y.

- 585 $\frac{6002}{5}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 55, fig. 23, 25.

Hamilton beds

West Williams Ont.

John De Cew, coll. 1865

- 586 $\frac{6002}{6}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 55, fig. 24.

Hamilton beds

West Williams Ont.

On slab with type of *Rhombopora carinata*, Pal.
N. Y. v. 6, pl. 55, fig. 2.

John De Cew, coll. 1865

- 587 $\frac{6002}{7}$ HYPOTYPE Hall & Simpson. Paleontology of New York
1887. v. 6, pl. 55, fig. 26.

Hamilton beds

West Williams Ont.

John De Cew, coll. 1865

Acanthoclema scutulatum Hall

- 588 $\frac{6002}{1}$ TYPE *Trematopora scutulata* Hall. Transac-
tions of the Albany institute. 1881. 10:180.

Acanthoclema scutulatum Hall and Simpson.
Paleontology of New York. 1887. v. 6, pl. 55, fig. 16.

Hamilton beds

York, Livingston co. N. Y.

- 589 $\frac{6003}{2}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 55, fig. 17.
Hamilton beds Dresden, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- 590 $\frac{6003}{3}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 56, fig. 19.
Hamilton beds Hamburg-on-the-Lake N. Y.
C. A. White, coll. 1860
- 591 $\frac{6003}{4}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 56, fig. 20.
Hamilton beds Hamburg-on-the-Lake N. Y.
C. A. White, coll. 1860

Acanthoclema sulcatum Hall & Simpson

- 592 $\frac{6004}{1}$ TYPE *Acanthoclema sulcatum* Hall & Simpson.
Paleontology of New York. 1887. 6: 192, pl. 55,
fig. 7; pl. 56, fig. 7.
Hamilton beds Darien Center N. Y.
On slab with type of *Stictopora divergens*, Pal. N. Y.
v. 6, pl. 63, fig. 18, 19.

Acanthoclema triseriale Hall

- 593 $\frac{6005}{1}$ TYPE *Stictopora* ? *triserialis* Hall. 2d annual
report of the New York state geologist. 1883. pl. 25,
fig. 6, 7.
Acanthoclema (*Stictopora*) *triseriale*
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 28, fig. 6, 7.
Onondaga limestone Leroy N. Y.
C. A. White, coll. 1860
On slab with type of *Stictopora rigida*, Pal. N. Y. v.
pl. 28, fig. 15, 16.

ACROGENIA Hall

Acrogenia prolifera Hall

- 594 $\frac{6020}{1}$ TYPE *Acrogenia prolifera* Hall. Transactions of
the Albany institute. 1881. 10: 194.
Acrogenia prolifera Hall & Simpson. Paleon-
tology of New York. 1887. v. 6, pl. 63, fig. 7-9, 14, 15.
Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 595 $\frac{6020}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 10, 11.
Hamilton beds Near Pavilion, Genesee co. N. Y.
- 596 $\frac{6020}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 12.
Hamilton beds Near Lodi landing, Seneca lake, N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
On slab with types of *Stictopora incisurata*, Pal. N. Y. v. 6, pl. 60, fig. 3, 11.
- 597 $\frac{6020}{4}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 13.
Hamilton beds Moscow, Livingston co. N. Y.
Alecto ? canadensis see *Hederella canadensis*
Aulopora filiformis see *Hederella filiformis*

BACTROPORA Hall

Bactropora curvata Hall & Simpson

- 598 $\frac{6040}{1}$ TYPE *Bactropora curvata* Hall & Simpson. Paleontology of New York. 1887. 6: 194, pl. 66, fig. 14-16.
Hamilton beds Fall brook, Gorham, Ontario co. N.Y.

Bactropora granistriata Hall

- 599 $\frac{6041}{1}$ TYPE *Trematopora ? granistriata* Hall. Transactions of the Albany institute. 1881. 10: 182.
Bactropora granistriata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 20-22.
Hamilton beds Darien Center N. Y.

BOTRYLLOPORA Nicholson

Botryllopora socialis Nicholson

- 600 $\frac{6060}{1}$ HYPOTYPE *Botryllopora socialis* Nicholson. Geological magazine, new ser. 1874. 1: 160.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 3.
Hamilton beds York, Livingston co. N. Y.
C. Van Deloo, coll. 1878.
- 601 $\frac{6060}{2}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 4.
Hamilton beds Leroy, Genesee co. N. Y.

CALLOPORA Hall

Callopora aculeolata *see* *Coelocaulis aculeolata*

Callopora (*Coelocaulis*) *aculeolata* *see* *Coelocaulis aculeolata*

Callopora bispinulata *see* *Rhombopora bispinulata*

***Callopora cellulosa* Hall**

602 $\frac{6080}{1}$ TYPE *Callopora cellulosa* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 154.

Callopora fistulosa Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 4.

Callopora cellulosa Hall & Simpson. Paleontology of New York. 1887. v. 6. pl. 12, fig. 4.

New Scotland beds Near Clarksville, Albany co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Diamesopora constricta*, Pal. N. Y. v. 6, pl. 23A, fig. 7.

603 $\frac{6080}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 7.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Coelocaulis venusta* Pal. N. Y. v. 6, pl. 23 a, fig. 2.

604 $\frac{6080}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 9.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Callopora heteropora *see* *Callotrypa heteropora*

Callopora (*Callotrypa*) *heteropora* *see* *Callotrypa heteropora*

Callopora irregularis *see* *Coelocaulis irregularis*

Callopora (*Coelocaulis*) *irregularis* *see* *Coelocaulis irregularis*

Callopora macropora *see* *Callotrypa macropora*
Callopora (*Callotrypa*) *macropora* *see*
Callotrypa macropora

Callopora (*Coelocaulis*) *mediopora* *see*
Coelocaulis mediopora

Callopora oculifera *see* *Callotrypa oculifera*

Callopora (*Callotrypa*) *oculifera* *see* *Callo-*
trypa oculifera

Callopora parasitica *see* *Fistulipora parasitica*

Callopora (*Callotrypa*) *paucipora* *see* *Cal-*
lotrypa paucipora

***Callopora perelegans* Hall**

605 $\frac{6081}{1}$ TYPE *Callopora perelegans* Hall. 26th annual
 report of the New York state museum of natural history.
 1874. p. 102.

Hall. 2d annual report of the New York state geolo-
 gist. 1883. pl. 12, fig. 11.

Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 12, fig. 11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

606 $\frac{6081}{2}$ TYPE Hall. 2d annual report of the New York state geol-
 ogist. 1883. pl. 12, fig. 12.

Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 12, fig. 12.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

607 $\frac{6081}{3}$ TYPE Hall. 2d annual report of the New York state geol-
 ogist. 1883. pl. 12, fig. 13.

Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 12, fig. 13.

New Scotland beds Near Clarksville N. Y.

J. Gebhard purchase

608 $\frac{6081}{4}$ TYPE Hall. 2d annual report of the New York state geol-
 ogist. 1883. pl. 12, fig. 17.

Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 12, fig. 17.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Callopora ponderosa *see* *Fistulipora ponderosa*

Callopora (*Callotrypa*) *striata* *see* *Callotrypa striata*

Callopora unispina *see* *Callotrypa striata* and *Callotrypa unispina*

Callopora venusta *see* *Coelocaulis venusta*

Callopora (*Coelocaulis*) *venusta* *see* *Coelocaulis venusta*

CALLOTRYPA Hall

Callotrypa heteropora Hall

609 $\frac{6082}{1}$ TYPE *Callopora heteropora* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 102.

Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 33.

Callopora (*Callotrypa*) *heteropora* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 33.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

610 $\frac{6082}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 32.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 32.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

611 $\frac{6082}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 5, 7.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

612 $\frac{6082}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 6.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Callotrypa heteropora*, pl. 13, fig. 5.

- 613 $\frac{6082}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 8.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 8.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of *Rhombopora canaliculata*, v. 6, pl. 11, fig. 12.
- 614 $\frac{6082}{6}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 3.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of *Callotrypa heteropora*, pl. 13, fig. 5.
***Callotrypa macropora* Hall**
- 615 $\frac{6100}{1}$ TYPE *Callopora macropora* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 101.
Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 23, 24.
Callopora (Callotrypa) macropora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 23, 24.
New Scotland beds Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 1876
- 616 $\frac{6100}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 28, 29.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 28, 29.
New Scotland beds Near Clarksville N. Y.
J. Gebhard purchase
***Callotrypa oculifera* Hall**
- 617 $\frac{6101}{1}$ TYPE *Callopora oculifera* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 155.
Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 10.
Callopora (Callotrypa) oculifera Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 10; pl. 23, fig. 6.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Callotrypa paucipora Hall & Simpson

- 618 $\frac{6102}{1}$ TYPE *Callopora* (*Callotrypa*) *paucipora* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 21.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Callotrypa striata Hall & Simpson

- 619 $\frac{6103}{1}$ TYPE *Callopora unispina* Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 38, 39.

Callopora (*Callotrypa*) *striata* Hall & Simpson. Paleontology of New York. 1887. 6: 26, pl. 11, fig. 38, 39; pl. 23, fig. 13.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

- 620 $\frac{6103}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 40, 41.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 40, 41; pl. 23, fig. 14.

New Scotland beds

Schoharie county, N. Y.

J. Gebhard purchase

Callotrypa unispina Hall

- 621 $\frac{6104}{1}$ HYPOTYPE *Callopora unispina* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 102.

Callotrypa unispina Simpson. 14th annual report of the New York state geologist. 1895. pl. 18, fig. 11.

New Scotland beds

Near Clarksville N. Y.

CERAMELLA Hall**Ceramella scidacea** Hall & Simpson

- 622 $\frac{6120}{1}$ TYPE *Ceramella scidacea* Hall & Simpson. Paleontology of New York. 1887. 6: 240, pl. 64, fig. 5, 6.

Hamilton beds

Shurger's glen, Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

- 623 $\frac{6120}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 7, 8.

Hamilton beds

Darien Center N. Y.

C. A. White, coll. 1860

CERAMOPORA Hall

Ceramopora ? (Lichenalia) foliacea Hall

- 624 $\frac{6140}{1}$ TYPE *Lichenalia foliacea* Hall. Transactions of the Albany institute. 1881. 10:183.

Ceramopora ? (Lichenalia) foliacea Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 57, fig. 6, 7.

Hamilton beds

Moscow N. Y.

Ceramopora imbricella Hall

- 625 $\frac{6141}{1}$ TYPE *Lichenalia (Ceramopora) imbricella* Hall. Transactions of the Albany institute. 1881. 10:188 (abstract) (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 37 (not figured).

Ceramopora imbricella Hall & Simpson Paleontology of New York. 1887. 6:236 (not figured).

Hamilton beds

Near Alden, Erie co. N. Y.

Ceramopora maculata Hall

- 626 $\frac{6142}{1}$ TYPE *Ceramopora maculata* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 108.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 6.

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

- 627 $\frac{6142}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 11.

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

Ceramopora ? parvicella Hall

- 628 $\frac{6143}{1}$ TYPE *Ceramopora parvicella* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 158.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 3, 4.

Ceramopora? *parvicella* Hall & Simpson.
Paleontology of New York. 1887. v. 6, pl. 16, fig. 3, 4.

New Scotland beds Near Clarksville, Albany co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Ceriopora hamiltonensis *see* *Acanthoclema hamiltonense*

Chaetetes (*Monotrypella*) *densus* *see*
Monotrypella densa

CHILOTRYPA Ulrich

Chilotrypa ostiolata Hall (sp.)

629 $\frac{6160}{1}$ HYPOTYPE *Trematopora ostiolata* Hall. Paleontology of New York. 1852. 2:152.

Chilotrypa ostiolata Grabau. New York state museum bulletin 45. 1901. p. 164, fig. 60.

Rochester shale Middleport, Niagara co. N. Y.

J. M. Clarke and R. Ruedemann, coll. 1900

On slab with type of *Bythopora spinulosa*, bul. 45, fig. 64.

Clathropora striatura *see* *Coscinium striatum*

CLONOPORA Hall

Clonopora fasciculata Hall & Simpson

630 $\frac{6180}{1}$ TYPE *Clonopora fasciculata* Hall & Simpson. Paleontology of New York. 1887. 6:289, pl. 66, fig. 1.

Onondaga limestone Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of *Polypora distans*, Pal. N. Y. v. 6, pl. 37, fig. 4, 5.

Clonopora incurva Hall

631 $\frac{6181}{1}$ TYPE *Clonopora incurva* Hall. Transactions of the Albany institute. 1881. 10:20 (abstract).

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 5, 6.

Onondaga limestone

Leroy N. Y.

C. D. Walcott, coll. 1878

COELOCAULIS Hall

Coelocaulis aculeolata Hall

- 632 $\frac{6200}{1}$ TYPE *Callopora aculeolata* Hall. Transactions of the Albany institute. 1881. 10:7 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 16, 17.

Callopora (*Coelocaulis*) *aculeolata* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 26, fig. 16, 17.

Onondaga limestone

Clarksville N. Y.

On slab with type of *Crisinella serobiculata* v. 6, pl. 33, fig. 6-8.

Coelocaulis irregularis Hall

- 633 $\frac{6201}{1}$ TYPE *Callopora irregularis* Hall. Transactions of the Albany institute. 1881. 10:7 (abstract).

Trematopora (*Callopora*) *irregularis* Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 11, 12.

Callopora (*Coelocaulis*) *irregularis* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 26, fig. 11, 12.

Onondaga limestone Babcock hill, Herkimer co. N. Y.

On slab with type of *Diamesopora camerata*. Pal. N. Y. v. 6, pl. 26, fig. 9, 10.

Coelocaulis mediopora Hall & Simpson

- 634 $\frac{6202}{1}$ TYPE *Callopora* (*Coelocaulis*) *mediopora* Hall & Simpson. Paleontology of New York. 1887. 6:23, pl. 23a, fig. 13.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

Coelocaulis venusta Hall

- 635 $\frac{6203}{1}$ TYPE *Callopora venusta* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 101.

Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 20.

Callopora (*Coelocaulis*) *venusta* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 20.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

636 $\frac{6203}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 21, 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 21, 22.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

637 $\frac{6203}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 23.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 23.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1887

638 $\frac{6203}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 24.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 24.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

639 $\frac{6203}{5}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23a, fig. 2.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Callopora cellulosa*, Pal. N. Y. v. 6, pl. 12, fig. 7.

640 $\frac{6203}{6}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23a, fig. 4.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

COSCINELLA Hall

Coscinella elegantula Hall & Simpson

641 $\frac{6220}{1}$ TYPE *Coscinella elegantula* Hall & Simpson. Paleontology of New York. 1887. 6: 239, pl. 64, fig. 9-12.

Hamilton beds

Thedford Ont.

COSCINIUM Keyserling

Coscinium striatum Hall

- 642 $\frac{6240}{1}$ TYPE *Clathropora striatura* Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 21.

Coscinium striatum Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 21.

Onondaga limestone Stafford, Genesee co. N. Y.
C. A. White, coll. 1860

Crisina? *scrobiculata* see *Crisinella scrobiculata*

CRISINELLA Hall

Crisinella scrobiculata Hall

- 643 $\frac{6260}{1}$ TYPE *Crisina?* *scrobiculata* Hall. Transactions of the Albany institute. 1881. 10:20 (abstract).

Crisinella scrobiculata Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 6-8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 6-8.

Onondaga limestone Clarksville N. Y.

On slab with type of *Cœlocaulis aculeolata*, Pal. N. Y. v. 6, pl. 26, fig. 16, 17.

CYCLOPORINA Hall

Cycloporina hemicyclus Hall

- 644 $\frac{6280}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Fenestella hemicycla* Hall. 6th annual report of the New York state geologist. 1887. p. 55, pl. 7, fig. 12.

Hamilton beds Moscow N. Y.

- 645 $\frac{6280}{2}$ HYPOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 13.

Hamilton beds Darien, Genesee co. N. Y.

- 646 $\frac{6280}{3}$ HYPOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 14.

Hamilton beds West Williams Ont.

John De Cew, coll. 1865

- 647 $\frac{6280}{4}$ HYPOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 15, 16.

Hamilton beds Darien N. Y.

DIAMESOPORA Hall

Diamesopora camerata Hall

- 648 $\frac{6300}{1}$ TYPE *Trematopora camerata* Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 9, 10.

Diamesopora camerata Hall & Simpson.
Paleontology of New York. 1887. v. 6, pl. 26, fig. 9, 10.
Onondaga limestone Onondaga Valley N. Y.
On slab with type of *Coelocaulis irregularis*, Pal.
N. Y. v. 6, pl. 26, fig. 11, 12.

Diamesopora constricta Hall

- 649 $\frac{6301}{1}$ TYPE *Trematopora constricta* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 104.

Diamesopora constricta Hall & Simpson.
Paleontology of New York. 1887. v. 6, pl. 23A, fig. 7.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of *Callopora cellulosa*. Pal. N. Y.
v. 6, pl. 12, fig. 4.

- 650 $\frac{6301}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 14, 15.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 10, fig. 14, 15.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

- 651 $\frac{6301}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 16.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 10, fig. 16.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

- 652 $\frac{6301}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 17.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 10, fig. 17.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

- 653 $\frac{6301}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 18, 19.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 18, 19.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

ESCHAROPORA Hall

Escharopora lirata see *Ptilodictya lirata*

Escharopora (*Ptilodictya*) *lirata* see *Rhinidictya granulosa*

Escharopora nebulosa see *Ptilodictya nebulosa*

Escharopora recta Hall

- 654 $\frac{6320}{1}$ TYPE *Escharopora recta* Hall. Paleontology of New York. 1847. 1:73, pl. 26, fig. 1a.

Trenton limestone Jacksonburg, Herkimer co. N. Y.

Escharopora tenuis see *Ptilodictya tenuis*

Escharopora (*Ptilodictya*) *tenuis*? see *Ptilodictya tenuis*

FAVICELLA Hall

Favicella inclusa Hall

- 655 $\frac{6340}{1}$ TYPE *Thallostigma inclusa* Hall. Transactions of the Albany institute. 1881. 10:188.

Favicella inclusa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 21, 22.

Hamilton beds York, Livingston co. N. Y.

C. Van Deloo, coll. 1878

- 656 $\frac{6340}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 23.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

FENESTELLA Lonsdale

Fenestella (sp. ?)

- 657 $\frac{6360}{1}$ HYPOTYPE *Fenestella* (sp. ?) Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 8.

Fenestella (sp. ?) Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 8.

New Scotland beds Schoharie N. Y.

On slab with type of *F. (Polypora) lilaea*, Pal. N. Y. v. 6, pl. 18, fig. 21, 22.

- Fenestella* (sp.) *see* *Fenestella* *adornata*
Fenestella (sp.) *see* *Fenestella* *noe*
Fenestella (sp.) *see* *Fenestella* *spio*
Fenestella (sp.) *see* *Polypora* (sp. indet.)
Fenestella (*Polypora*) (sp. indet.) *see* *Polypora*
 (sp. indet.)

***Fenestella* *adornata* Hall & Simpson**

- 658 $\frac{6360}{2}$ TYPE *Fenestella* sp.? Hall. 2d annual report of the
 New York state geologist. 1883. pl. 22, fig. 7.
Fenestella *adornata* Hall & Simpson. Pale-
 ontology of New York. 1887. v 6, pl. 22, fig. 7.
 New Scotland beds Near Clarksville N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1877
- 659 $\frac{6360}{3}$ TYPE Hall. 2d annual report of the New York state
 museum. 1883. pl. 22, fig. 8.
 Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 22, fig. 8.
 New Scotland beds Near Clarksville N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1877

***Fenestella* *adrastea* Hall**

- 660 $\frac{6361}{1}$ TYPE *Fenestella* *adrastea* Hall. 32d annual report
 of the New York state museum of natural history. 1879.
 p. 169.
 Hall. 2d annual report of the New York state geolo-
 gist. 1883. pl. 20, fig. 20, 21.
 Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 20, fig. 20, 21.
 New Scotland beds Near Clarksville N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1877
- 661 $\frac{6361}{2}$ TYPE Hall. 2d annual report of the New York state
 geologist. 1883. pl. 20, fig. 22.
 Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 20, fig. 22.
 New Scotland beds Near Clarksville N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella aequalis Hall

- 662 $\frac{6362}{1}$ TYPE *Fenestella aequalis* Hall. Transactions of the Albany institute. 1881. 10:31 (abstract).

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 46, fig. 27-29.

Onondaga limestone

Walpole Ont.

C. D. Walcott, coll. 1878

On slab with type of *F. tuberculata*, v. 6, pl. 46,
fig. 25, 26.

Fenestella albida Hall

- 663 $\frac{6364}{1}$ TYPE *Fenestella albida* Hall. 6th annual report of the New York state geologist. 1887. p. 48, pl. 7, fig. 1, 5.

Waverly beds

Richfield, Summit co. O.

C. A. White, coll. 1861

- 664 $\frac{6364}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 2, 6.

Waverly beds

Richfield O.

C. A. White, coll. 1861

- 665 $\frac{6364}{3}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 3, 4.

Waverly beds

Richfield O.

C. A. White, coll. 1861

On slab with type of *F. aperta*, 6th report, pl. 4, fig. 1-5.

- 666 $\frac{6364}{4}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 7.

Waverly beds

Richfield O.

C. A. White, coll. 1861

Fenestella althaea Hall

- 667 $\frac{6365}{1}$ TYPE *Fenestella althaea* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 166.

Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 17

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 19, fig. 17.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 668 $\frac{6365}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 18.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 19, fig. 18.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

669 $\frac{6365}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 19.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 19, fig. 19.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella angustata Hall

670 $\frac{6366}{1}$ TYPE *Fenestella angustata* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 60.

Hall. 7th annual report of the New York state geologist. 1888. pl. 8, fig. 1, 4, 6-8.

Hamilton beds Near Alden, Erie co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

671 $\frac{6366}{2}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 8, fig. 2, 3.

Hamilton beds Alden N. Y.

C. Van Deloo, coll. 1874

672 $\frac{6366}{3}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 8, fig. 5.

Hamilton beds Alden N. Y.

C. Van Deloo, coll. 1874

Fenestella aperta Hall

673 $\frac{6367}{1}$ TYPE *Fenestella aperta* Hall. 6th annual report of the New York state geologist. 1887. p. 58, pl. 4, fig. 1-5.

Waverly beds Richfield, Summit co. O.

C. A. White, coll. 1861

On slab with type of *F. albidia*, 6th report, pl. 7, fig. 3, 4.

Fenestella arta see *Polypora arta* and *Polypora obliqua*

Fenestella (*Polypora*) *arta* see *Polypora arta*

Fenestella (*Polypora*) *aspectans* see *Polypora aspectans*

**Fenestella aspectus* (in error) see *Polypora aspectans*

Fenestella assita Hall

- 674 $\frac{6368}{1}$ TYPE *Fenestella assita* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 64.

Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 8, 9.

Hamilton beds Canandaigua lake, N. Y.

- 675 $\frac{6368}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 10, 11.

Hamilton beds Canandaigua N. Y.

Fenestella (*Hemitrypa*) *biserialis* *see* *Hemitrypa biserialis*

Fenestella (*Hemitrypa*) *biserialis* var. *exilis* *see* *Hemitrypa biserialis var. exilis*

Fenestella biseriata Hall & Simpson

- 676 $\frac{6369}{1}$ TYPE *Fenestella biseriata* Hall & Simpson. Paleontology of New York. 1887. 6:113, pl. 42, fig. 16-18.

Onondaga limestone Cherry Valley, Otsego co. N. Y.
C. A. White, coll. 1860

Fenestella (*Polypora*) (n. sp.) *see* *Polypora carinella*

Fenestella (*Polypora*) *carinella* *see* *Polypora carinella*

Fenestella celsipora *see* *Polypora celsipora*

Fenestella (*Polypora*) *celsipora* *see* *Polypora celsipora*

Fenestella cleia Hall

- 677 $\frac{6370}{1}$ TYPE *Fenestella cleia* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 169.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 14.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 678 $\frac{6370}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 15.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 15.

New Scotland beds Near Clarksville N. Y.

Fenestella compacta *see* *Polypora compacta*
Fenestella (*Polypora*) *compacta* *see* *Polypora compacta*

Fenestella compressa *see* *Polypora compressa*
Fenestella (*Polypora*) *compressa* *see* *Polypora compressa*

***Fenestella coronis* Hall**

- 679 $\frac{6371}{1}$ TYPE *Fenestella coronis* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 171.

Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 10.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 680 $\frac{6371}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 11.

New Scotland beds Near Clarksville N. Y.

- 681 $\frac{6371}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 12.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 682 $\frac{6371}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 13.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella crebescens *see* *Polypora crebescens*
Fenestella (*Polypora*) *crebescens* *see* *Polypora crebescens*

***Fenestella crebripora* Hall**

- 683 $\frac{6372}{1}$ TYPE *Fenestella crebripora* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 95.

Hall. 2d annual report of the New York state geologist.
1883. pl. 20, fig. 2.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 20, fig. 2.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella curvata Hall

684 $\frac{6373}{1}$ TYPE *Fenestella curvata* Hall. 36th annual report
of the New York state museum of natural history. 1883.
p. 69.

Hall. 6th annual report of the New York state geolo-
gist. 1887. pl. 6, fig. 2, 6.

Hamilton beds Moscow, Livingston co. N. Y.

C. Van Deloo, coll. 1865

685 $\frac{6373}{2}$ TYPE Hall. 6th annual report of the New York state
geologist. 1887. pl. 6, fig. 3-5.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

686 $\frac{6373}{3}$ TYPE Hall. 6th annual report of the New York state
geologist. 1887. pl. 6, fig. 7, 9.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

687 $\frac{6373}{4}$ TYPE Hall. 6th annual report of the New York state
geologist. 1887. pl. 6, fig. 8.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

On slab with type of *Fenestrapora biperforata*,
Pal. N. Y. v. 6, pl. 66, fig. 39.

Fenestella curvata see *Fenestella marcida*

Fenestella curvijunctura Hall

688 $\frac{6374}{1}$ TYPE *Fenestella curvijunctura* Hall. Transac-
tions of the Albany institute. 1881. 10:29 (abstract).

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 46, fig. 1, 2.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Polypora paxillata*, Pal. N. Y.
v. 6, pl. 18, fig. 10, 11.

Fenestella dispanda Hall

- 689 $\frac{6375}{1}$ TYPE *Fenestella dispanda* Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 44, fig. 1-3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 1-3.

Onondaga limestone

Leroy N. Y.

- 690 $\frac{6375}{2}$ TYPE Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 44, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 4.

Onondaga limestone

Leroy N. Y.

Fenestella (Ptiloporina) *disparilis* *see* Ptiloporina *disparilis*

Fenestella distans *see* Polypora *distans*

Fenestella (Polypora) *distans* *see* Polypora *distans*

Fenestella (Polypora) *elongata* *see* Polypora *elongata*

Fenestella eudora *see* Polypora *eudora*

Fenestella eudora? *see* *Fenestella stricta*

Fenestella (Polypora) *eudora* *see* Polypora *eudora*

Fenestella exornata Hall

- 691 $\frac{6376}{1}$ TYPE *Fenestella exornata* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 67.

Hall. 6th annual report of the New York state geologist. 1887. pl. 5, fig. 1, 2, 3, 4, 5.

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865

- 692 $\frac{6376}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 5, fig. 6-13 (4 specimens used for constructing figures).

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865

Fenestella fistulata *see* Polyporella *fistulata*

Fenestella (Polypora) *fistulata* *see* Polyporella *fistulata*

Fenestella flabelliformis *see* *Polypora flabelliformis*

Fenestella (*Polypora*) *flabelliformis* *see* *Polypora flabelliformis*

***Fenestella frequens* Hall**

- 693 $\frac{6377}{1}$ TYPE *Fenestella frequens* Hall. 7th annual report of the New York state geologist. 1888. p. 34, pl. 9, fig. 12.

Helderbergian

Near Clarksville N. Y.

***Fenestella granifera* Hall**

- 694 $\frac{6378}{1}$ TYPE *Fenestella* (*Hemitrypa*) *granifera* Hall. Transactions of the Albany institute. 1881. 10:33 (abstract).

Hall. 5th annual report of the New York state geologist. 1886. pl. 50, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 50, fig. 13.

Onondaga limestone

Leroy N. Y.

C. D. Walcott, coll. 1878

Fenestella (*Hemitrypa*) *granifera* *see* *Fenestella granifera*

Fenestella hemicycla *see* *Cycloporina hemicycla*

***Fenestella hestia* Hall**

- 695 $\frac{6379}{1}$ TYPE *Fenestella hestia* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 168.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 12, 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 12, 13.

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

***Fenestella idalia* Hall**

- 696 $\frac{6380}{1}$ TYPE *Fenestella idalia* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 95.

Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 7.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 21, fig. 7.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

697 $\frac{6380}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 8.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 21, fig. 8.

New Scotland beds Schoharie N. Y.

Fenestella juncea Hall

698 $\frac{6381}{1}$ TYPE *Fenestella junceus* Hall. 32d annual report of the New York state museum of natural history. 1879.
p. 168.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 16, 17, 18.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 20, fig. 16-18.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella largissima see *Polypora largissima*

Fenestella (*Polypora*) *largissima* see *Polypora largissima*

Fenestella (*Hemitrypa*) *lata* see *Unitrypa lata*

Fenestella (*Unitrypa*) *lata* see *Unitrypa lata*

Fenestella latitruncata see *Polypora latitruncata*

Fenestella (*Polypora*) *latitruncata* see *Polypora latitruncata*

Fenestella (*Polypora*) *lilaea* see *Polypora lilaea*

Fenestella marcida Hall

699 $\frac{6382}{1}$ TYPE *Fenestella marcida* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 61.

Fenestella curvata (erroneously) Hall. 6th annual report of the New York state geologist. 1887.
pl. 6, fig. 1, 13.

Hamilton beds Moscow N. Y.

700 $\frac{6382}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 10.

Hamilton beds

Moscow N. Y.

701 $\frac{6382}{3}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 11, 14, 15.

Hamilton beds

Moscow N. Y.

702 $\frac{6382}{4}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 12.

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865

Fenestella multiplex *see* *Polypora multiplex*

Fenestella (*Polypora*) *multiplex* *see* *Polypora multiplex*

Fenestella nervia *see* *Unitrypa nervia*

Fenestella (*Unitrypa*) *nervia* *see* *Unitrypa nervia*

Fenestella (*Hemitrypa*) *nervia* *var. constricta* *see* *Unitrypa nervia* *var. constricta*

Fenestella (*Unitrypa*) *nervia* *var. constricta* *see* *Unitrypa nervia* *var. constricta*

***Fenestella nexilis* Hall**

703 $\frac{6383}{1}$ TYPE *Fenestella nexilis* Hall. 7th annual report of the New York state geologist. 1888. pl. 10, fig. 14, 15.

Onondaga limestone

West of Leroy N. Y.

***Fenestella noe* Hall**

704 $\frac{6384}{1}$ TYPE *Fenestella* (sp.) Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 19.

Fenestella noe Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 19.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Callotrypa heteropora*, Pal. N. Y. v. 6, pl. 13, fig. 5.

705 $\frac{6384}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 21.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 21.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with types of *Callotrypa heteropora*, Pal. N. Y. v. 6, pl. 13, fig. 5, and *F. noe*, pl. 13, fig. 19.

- 706 $\frac{6384}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 22.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 13, fig. 22.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella (*Polypora*) *obliqua* *see* *Polypora obliqua*

***Fenestella parallela* Hall**

- 707 $\frac{6385}{1}$ TYPE *Fenestella parallela* Hall. Transactions of the Albany institute. 1881. 10:26 (abstract).

Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 8, 16-18.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 44, fig. 8, 16-18.

Onondaga limestone Near Buffalo N. Y.

- 708 $\frac{6385}{2}$ PLASTOTYPE Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 9.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 44, fig. 9.

Onondaga limestone Near Buffalo N. Y.

- 709 $\frac{6385}{3}$ TYPE Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 10, 13.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 44, fig. 10, 13.

Onondaga limestone Near Buffalo N. Y.

- 710 $\frac{6385}{4}$ HYPOTYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 9, fig. 6-11.

New Scotland beds Catskill creek, Greene co. N. Y.

G. B. Simpson, coll. 1877

Fenestella paxillata see *Polypora paxillata*

Fenestella (*Polypora*) *paxillata see* *Polypora paxillata*

***Fenestella peculiaris* Hall**

- 711 $\frac{6386}{1}$ TYPE *Fenestella peculiaris* Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 19-21.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 42, fig. 19-21.

Onondaga limestone Caledonia, Livingston co. N. Y.

C. A. White, coll. 1861

Fenestella perangulata *see* *Polypora angulata*
Fenestella (*Polypora*) *perangulata* *see*
Polypora angulata

Fenestella perforata *see* *Loculipora perforata*
Fenestella (*Loculipora*) *perforata* *see*
Loculipora perforata

Fenestella perundulata *see* *Reteporina perundulata*

Fenestella (*Reteporina*) *perundulata* *see*
Reteporina perundulata

***Fenestella philia* Hall**

- 712 $\frac{6387}{1}$ TYPE *Fenestella philia* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 168.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 9-11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 9-11.

New Scotland beds Near Clarksville N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1877

***Fenestella planiramosa* Hall**

- 713 $\frac{6388}{1}$ TYPE *Fenestella planiramosa* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 62.

Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 1, 9, 10.

Hamilton beds Moscow N. Y.
 C. Van Deloo, coll. 1865

On specimen with type of *Stictopora tumulosa*, Pal. N. Y. v. 6, pl. 61, fig. 22.

- 714 $\frac{6388}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 2.

Hamilton beds Near Pompey Hill, Onondaga co. N. Y.
 G. B. Simpson, coll. 1863

- 715 $\frac{6388}{3}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 3-5.

Hamilton beds Moscow N. Y.

- 716 $\frac{6388}{4}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 6, 7.

Hamilton beds Borodino, Skaneateles lake, N. Y.
 J. W. Hall and G. B. Simpson, coll. 1872

- 717 $\frac{6388}{5}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 11-13.
 Hamilton beds Moscow N. Y.
C. Van Deloo, coll. 1865
Fenestella planiramosa see *Polypora compressa*
Fenestella praecursor see *Unitrypa praecursor*
Fenestella (*Unitrypa*) *praecursor* see *Unitrypa praecursor*
Fenestella propria see *Polypora propria*
Fenestella (*Polypora*) *propria* see *Polypora propria*
Fenestella quadrangularis see *Polypora quadrangularis*
- Fenestella quadrula* Hall**
- 718 $\frac{6389}{1}$ TYPE *Fenestella quadrula* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 172.
 Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 19, 20.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 19, 20.
 New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
 On slab with type of *Polypora paxillata*, Pal. N. Y. pl. 18, fig. 10, 11, and *F. curvijunctura*, Pal. N. Y. v. 6, pl. 46, fig. 1, 2.
- 719 $\frac{6389}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 21.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 21.
 New Scotland beds Near Clarksville N. Y.
- 720 $\frac{6389}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 22.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 22.
 New Scotland beds Near Clarksville N. Y.
Fenestella rigida see *Polypora rigida*

Fenestella (Polypora) *rigida* *see* Polypora *rigida*

Fenestella rhombifera *see* Reteporina *rhombifera*

Fenestella (Reteporina) *rhombifera* *see* Reteporina *rhombifera*

Fenestella scalaris *see* Unitrypa *scalaris*

Fenestella (Unitrypa) *scalaris* *see* Unitrypa *scalaris*

***Fenestella sinuosa* Hall**

721 $\frac{6390}{1}$ TYPE *Fenestella sinuosa* Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 5, 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 5, 6.

Onondaga limestone Caledonia, Livingston co. N. Y.
C. A. White, coll. 1861

***Fenestella spio* Hall and Simpson**

722 $\frac{6391}{1}$ TYPE *Fenestella* (sp.?) Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 16.

Fenestella spio Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 16.

New Scotland beds Near Clarksville N. Y.

***Fenestella spissa* Hall**

723 $\frac{6392}{1}$ TYPE *Fenestella spissa* Hall. 6th annual report of the New York state geologist. 1887. p. 59 (not figured).

Hamilton beds West Bloomfield, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Fenestella striata *see* Reteporina *striata*

Fenestella (Reteporina) *striata* *see* Reteporina *striata*

***Fenestella stricta* Hall & Simpson**

724 $\frac{6393}{1}$ TYPE *Fenestella eudora?* Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 1, 2.

Fenestella stricta Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 1, 2.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella subtortilis Hall

- 725 $\frac{6394}{1}$ TYPE *Fenestella subtortilis* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 71.

Hall. 7th annual report of the New York state geologist. 1888. pl. 9, fig. 1, 2.

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865

- 726 $\frac{6394}{2}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 9, fig. 3-5.

Hamilton beds

Moscow N. Y.

Fenestella thyene Hall

- 727 $\frac{6395}{1}$ TYPE *Fenestella thyene* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 170.

Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 1, 2.

Hall & Simpson. Paleontology of New York. 1887. v. 6. pl. 21, fig. 1, 2.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 728 $\frac{6395}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 4.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 729 $\frac{6395}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 5.

New Scotland beds

Near Clarksville N. Y.

Fenestella tuberculata Hall & Simpson

- 730 $\frac{6396}{1}$ TYPE *Fenestella tuberculata* Hall & Simpson. Paleontology of New York. 1887. 6:116, pl. 46, fig. 25, 26.

Onondaga limestone

Walpole Ont.

C. D. Walcott, coll. 1878

On slab with *Fenestella aequalis* Pal. N. Y. v. 6, pl. 46, fig. 27-29.

FENESTRAPORA Hall

Fenestrapora biperforata Hall

- 731 $\frac{6420}{1}$ TYPE *Fenestrapora biperforata* Hall. 4th annual report of the New York state geologist. 1885. Explanation of pl. 2.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 66, fig. 39.

Hamilton shales

Moscow N. Y.

C. Van Deloo, coll. 1865

On slab with type of *Fenestella curvata*, 6th an. rep't,
pl. 6, fig. 8.

FISTULIPORA McCoy

Fistulipora confertipora Hall

- 732 $\frac{6440}{1}$ TYPE *Thallostigma confertipora* Hall. Transactions of the Albany institute. 1881. 10:184.

Fistulipora confertipora Hall & Simpson.
Paleontology of New York. 1887. v. 6, pl. 58, fig. 1, 2.

Hamilton beds

Alden, Erie co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

- 733 $\frac{6440}{2}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 58, fig. 3.

Hamilton beds

Near Darien Center N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

- 734 $\frac{6440}{3}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 58, fig. 4.

Hamilton beds

Moscow N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 735 $\frac{6440}{4}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 58, fig. 5.

Hamilton beds

2 miles east of Alden N. Y.

Fistulipora constricta Hall

- 736 $\frac{6441}{1}$ TYPE *Lichenalia constricta* Hall. Transactions of the Albany institute. 1881. 10:183.

Hall. 7th annual report of the New York state geologist. 1888. pl. 15, fig. 11, 12.

Hamilton beds

Near Leroy N. Y.

C. D. Walcott, coll. 1878

Fistulipora decipiens Hall

- 737 $\frac{6442}{1}$ TYPE *Thallostigma decipiens* Hall. Transactions of the Albany institute. 1881. 10:187.

Fistulipora decipiens Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 59, fig. 9.

Hamilton beds York, Livingston co. N. Y.
C. Van Deloo, coll. 1878

Fistulipora densa Hall

- 738 $\frac{6443}{1}$ TYPE *Thallostigma densa* Hall. Transactions of the Albany institute. 1881. 10:186 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 25 (not figured).

Fistulipora densa Hall & Simpson. Paleontology of New York. 1887. 6:231 (not figured).

Hamilton beds York N. Y.
C. Van Deloo, coll. 1878

Fistulipora digitata Hall

- 739 $\frac{6444}{1}$ TYPE *Thallostigma digitata* Hall. Transactions of the Albany institute. 1881. 10:185.

Fistulipora digitata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 59, fig. 10, 13 (not 12, 13, as on plate).

Hamilton shales York N. Y.
C. Van Deloo, coll. 1874

Fistulipora interaspera *see* *Lichenalia interaspera*

Fistulipora involvens Hall & Simpson

- 740 $\frac{6445}{1}$ TYPE *Fistulipora involvens* Hall & Simpson. Paleontology of New York. 1887. 6:221, pl. 59, fig. 2.

Hamilton beds Near Alden N. Y.
C. Van Deloo, coll. 1874

Fistulipora lamellata Hall

- 741 $\frac{6446}{1}$ TYPE *Thallostigma lamellata* Hall. Transactions of the Albany institute. 1881. 10:13 (abstract).

Fistulipora lamellata Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 30, fig. 21, 22.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 30, fig. 21, 22.

Onondaga limestone

Onondaga Valley N. Y.

C. A. White, coll. 1860

742 $\frac{6446}{2}$ TYPE Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 30, fig. 23.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 30, fig. 23.

Onondaga limestone

Onondaga Valley N. Y.

Fistulipora longimacula Hall

743 $\frac{6447}{1}$ TYPE *Thallostigma longimacula* Hall Transactions of the Albany institute. 1881. 10:185.

Hall. 3d annual report of the New York state geologist. 1884. p. 23 (not figured).

Fistulipora longimacula Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 209 (not figured).

Hamilton beds

York N. Y.

C. Van Deloo, coll. 1878

Fistulipora micropora Hall

744 $\frac{6448}{1}$ TYPE *Thallostigma micropora* Hall. Transactions of the Albany institute. 1881. 10:186.

Fistulipora micropora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 57, fig. 20; pl. 59, fig. 3.

Hamilton beds

Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

On slab with type of *F. segregata*, Pal. N. Y. v. 6, pl. 59, fig. 4.

Fistulipora minuta Rominger

745 $\frac{6449}{1}$ HYPOTYPE *Fistulipora minuta* Rominger. Proceedings of the Academy of natural sciences of Philadelphia. 1866. p. 120.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 59, fig. 5-7.

Hamilton beds

Hamburg-on-the-Lake N. Y.

C. Van Deloo, coll. 1864

- 746 $\frac{6449}{2}$ **HYPOTYPE** Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 59, fig. 8.

Hamilton shales

Delphi, Onondaga co. N. Y.

J. W. Hall and G. B. Simpson, coll. 1875

Fistulipora multaculeata Hall

- 747 $\frac{6450}{1}$ **TYPE** *Thallostigma multaculeata* Hall. 3d annual report of the New York state geologist. 1884. p. 23.

Fistulipora multaculeata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 59, fig. 11, 12 (not 10).

Hamilton beds

Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1865

On slab with type of *Hederella filiformis*, Pal. N. Y. v. 6, pl. 65, fig. 11.

Fistulipora occidens Hall & Whitfield

- 748 $\frac{6451}{1}$ **TYPE** *Fistulipora occidens* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 228, pl. 10, fig. 9, 10.

Upper Devonian

Rockford (marly beds) Ia.

R. P. Whitfield, coll. 1866

Fistulipora parasitica Hall

- 749 $\frac{6452}{1}$ **TYPE** *Callopora parasitica* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 157.

Hall. 2d annual report of the New York state geologist. 1883. pl. 14, fig. 13, 14.

Fistulipora parasitica Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 14, fig. 13, 14.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of *Polypora obliqua*, Pal. N. Y. v. 6. pl. 18, fig. 8, 9.

Fistulipora plana Hall

- 750 $\frac{6453}{1}$ **TYPE** *Thallostigma plana* Hall. Transactions of the Albany institute. 1881. 10:187.

Fistulipora plana Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 19, 20.

Hamilton beds

Darien Center, Genesee co. N. Y.

C. A. White, coll. 1860

Fistulipora ponderosa Hall

- 751 $\frac{6454}{1}$ TYPE *Callopora ponderosa* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 103.

Fistulipora ponderosa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23A, fig. 10.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fistulipora pustulosa Hall & Simpson

- 752 $\frac{6455}{1}$ TYPE *Lichenalia pustulosa* Hall & Simpson. Paleontology of New York. 1887. 6:206 (not figured), 2 specimens (1 section).

Fistulipora pustulosa Simpson. 14th annual report of the New York state geologist. 1887. pl. 22, fig. 12.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

Fistulipora scrobiculata Hall

- 753 $\frac{6456}{1}$ TYPE *Thallostigma scrobiculata* Hall. Transactions of the Albany institute. 1881. 10:184.

Fistulipora scrobiculata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 17, 18.

Hamilton beds York N. Y.

Fistulipora segregata Hall

- 754 $\frac{6457}{1}$ TYPE *Thallostigma segregata* Hall. Transactions of the Albany institute. 1881. 10:186.

Fistulipora segregata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 59, fig. 4.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

On slab with type of *Fistulipora micropora*, Pal. N. Y. v. 6, pl. 57, fig. 20.

Fistulipora serrulata Hall

- 755 $\frac{6458}{1}$ TYPE *Thallostigma serrulata* Hall. Transactions of the Albany institute. 1881. 10:185.

Fistulipora serrulata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 6, 7.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1874

- 756 $\frac{6458}{2}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 58, fig. 8.
Hamilton beds Moscow N. Y.

Fistulipora? subtilis Hall

- 757 $\frac{6459}{1}$ TYPE *Thallostigma subtilis* Hall. Transactions
of the Albany institute. 1881. 10:187.

Hall. 3d annual report of the New York state geologist
1884. p. 30 (not figured).

Fistulipora? subtilis Hall & Simpson. Pale-
ontology of New York. 1887. 6:233 (not figured).

Hamilton beds Thedford Ont.
John DeCew, coll. 1865

Fistulipora trifaria Hall & Simpson

- 758 $\frac{6460}{1}$ TYPE *Fistulipora trifaria* Hall & Simpson. Pale-
ontology of New York. 1887. 6:222 (not figured).

Hamilton beds Fall brook, Gorham N. Y.

Fistulipora? umbilicata Hall

- 759 $\frac{6461}{1}$ TYPE *Thallostigma umbilicata* Hall. Transac-
tions of the Albany institute. 1881. 10:185.

Hall. 3d annual report of the New York state geolo-
gist. 1884. p. 22 (not figured).

Fistulipora? umbilicata Hall & Simpson.
Paleontology of New York. 1887. 6:213 (not figured).

Hamilton beds York N. Y.
C. Van Deloo, coll. 1878

On slab with type of *Paleschara reticulata*. Trans.
Alb. inst. 10:179 (not figured).

Fistulipora unilinea Hall & Simpson

- 760 $\frac{6462}{1}$ TYPE *Fistulipora unilinea* Hall & Simpson. Pale-
ontology of New York. 1887. 6:217, pl. 57, fig. 1, 2, 5.

Hamilton shales York N. Y.
C. Van Deloo, coll. 1878

Fistulipora variapora Hall

- 761 $\frac{6463}{1}$ TYPE *Thallostigma variapora* Hall. Transac-
tions of the Albany institute. 1881. 10:184.

Fistulipora variapora Hall & Simpson. Pale-
ontology of New York. 1887. v. 6, pl. 58, fig. 9.

Hamilton beds Canandaigua lake, N. Y.

- 762 $\frac{6463}{2}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 58, fig. 10, 11.

Hamilton beds West Williams Ont.

- 763 $\frac{6463}{3}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 58, fig. 12.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

- 764 $\frac{6463}{4}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 58, fig. 14.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

GLAUCONOME Goldfuss

Glaucanome carinata Hall

- 765 $\frac{6480}{1}$ TYPE *Glaucanome carinata* Hall. Transactions
of the Albany institute. 1881. 10:196.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 66, fig. 23, 24.

Hamilton beds Fall brook, Gorham N. Y.

Glaucanome nodata Hall

- 766 $\frac{6481}{1}$ TYPE *Glaucanome nodata* Hall. Transactions of
the Albany institute. 1881. 10:18 (abstract).

Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 26, fig. 13, 14.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 33, fig. 13, 14.

Onondaga limestone Thompson's lake, Albany co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

Glaucanome sinuosa Hall

- 767 $\frac{6482}{1}$ TYPE *Glaucanome sinuosa* Hall. Transactions
of the Albany institute. 1881. 10:18 (abstract).

Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 26, fig. 11, 12.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 33, fig. 11, 12.

Onondaga limestone

Near Buffalo N. Y.

Glauconome tenuistriata Hall

- 768 $\frac{6483}{1}$ TYPE *Glauconome tenuistriata* Hall. Transactions of the Albany institute. 1881. 10:19 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 15, 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 15, 16.

Onondaga limestone

Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of *Clonopora fasciculata*, Pal. N. Y. v. 6, pl. 66, fig. 1.

- 769 $\frac{6483}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 18.

Onondaga limestone

Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of *Clonopora fasciculata*, Pal. N. Y. v. 6, pl. 66, fig. 1.

- 770 $\frac{6483}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 19.

Hall and Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 19.

Onondaga limestone

Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of *Clonopora fasciculata*, Pal. N. Y. v. 6, pl. 66, fig. 1.

HEDERELLA Hall**Hederella alternata** Hall & Whitfield (sp.)

- 771 $\frac{6500}{1}$ TYPE *Stomatopora? alternata* Hall & Whitfield. 23d annual report of the New York state museum of natural history. 1873. p. 235, pl. 10, fig. 7, 8.

Upper Devonian

Lime creek, Rockford Ia.

R. P. Whitfield, coll. 1866

Hederella arachnoidea Clarke

- 772 $\frac{6501}{1}$ TYPE: PLASTOTYPE *Hederella arachnoidea* Clarke. New York state museum memoir 3. 1900. p. 61, pl. 9, fig. 11.

Oriskanian

Becraft mountain, Hudson N. Y.

Hederella canadensis Nicholson (sp.)

- 773 $\frac{65.02}{1}$ HYPOTYPE *Alecto?* *canadensis* Nicholson. Canadian naturalist, ser. 2. 1874. 7:146.

Hederella canadensis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 1, 14.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

- 774 $\frac{65.02}{2}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 2, 5, 7.

Hamilton beds York N. Y.

- 775 $\frac{65.02}{3}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 3, 4.

Hamilton beds York N. Y.

- 776 $\frac{65.02}{4}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 6.

Hamilton beds York N. Y.

- 777 $\frac{65.02}{5}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 8.

Hamilton beds. York N. Y.

C. Van Deloo, coll. 1878

Hederella cirrhosa Hall

- 778 $\frac{65.03}{1}$ TYPE *Hederella cirrhosa* Hall. Transactions of the Albany institute. 1881. 10:194.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 12, 13.

Hamilton beds West Bloomfield, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Hederella filiformis Billings (sp.)

- 779 $\frac{65.04}{1}$ HYPOTYPE *Aulopora filiformis* Billings. Canadian journal of science, industry and arts, new ser. 1859. 4:119.

Hederella filiformis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 9.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

- 780 $\frac{65.04}{2}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 10.

Hamilton beds Near Leroy N. Y.

C. D. Walcott, coll. 1878

- 781 $\frac{65.04}{3}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 11.

Hamilton beds

Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1865

On slab with type of *Fistulipora multaculeata*,
Pal. N. Y. v. 6, pl. 59, fig. 11.

Hederella gracilior Clarke

- 782 $\frac{65.05}{1}$ TYPE: PLASTOTYPE *Hederella gracilior* Clarke. New York state museum memoir 3. 1900. p. 62, pl. 9, fig. 10.

Oriskanian

Becraft mountain, Hudson N. Y.

On slab with type of *H. magna*, N. Y. state mus. mem. 3, pl. 9, fig. 10.

Hederella magna Hall

- 783 $\frac{65.06}{1}$ TYPE *Hederella magna* Hall. Transactions of the Albany institute. 1881. 10:195.

Hall & Simpson. Paleontology of New York. 1887
v. 6, pl. 65, fig. 15.

Hamilton beds

York N. Y.

C. Van Deloo, coll. 1878

- 784 $\frac{65.06}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 9, fig. 10.

Oriskanian

Becraft mountain, Hudson N. Y.

On slab with type of *Hederella gracilior*, N. Y.
state mus. mem. 3, pl. 9, fig. 10.

Hederella ramea Clarke

- 785 $\frac{65.07}{1}$ TYPE: PLASTOTYPE *Hederella ramea* Clarke. New York state museum memoir 3. 1900. p. 62, pl. 9, fig. 9.

Oriskanian

Becraft mountain, Hudson N. Y.

HEMITRYPA Phillips

Hemitrypa biserialis Hall

- 786 $\frac{65.20}{1}$ TYPE *Fenestella (Hemitrypa) biserialis* Hall-32d annual report of the New York state museum of natural history. 1879. p. 174.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 13, 18.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 13, 18.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

787 $\frac{6520}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 16.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 16.

New Scotland beds

Near Clarksville N. Y.

Hemitrypa biserialis Hall *var. exilis* Hall & Simpson

788 $\frac{6530}{1}$ TYPE Fenestella (Hemitrypa) biserialis Hall.
2d annual report of the New York state geologist. 1883.
pl. 22, fig. 14.

Fenestella (Hemitrypa) biserialis *var. exilis* Hall & Simpson. Paleontology of New York.
1887. v. 6, p. 57, pl. 22, fig. 14.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Rhombopora canaliculata, Pal.
N. Y. v. 6, pl. 11, fig. 12.

789 $\frac{6530}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 15.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 15.

New Scotland beds

Near Clarksville N. Y.

LICHENALIA Hall

Lichenalia colliculata Hall

790 $\frac{6540}{1}$ TYPE Lichenalia colliculata Hall. Transactions
of the Albany institute. 1881. 10: 184 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 36 (not figured).

Hall & Simpson. Paleontology of New York. 1887.
v. 6, p. 200 (not figured).

Simpson. 14th annual report of the New York state geologist. 1895. pl. 22, fig. 8, 9.

Hamilton beds

York N. Y.

C. Van Deloo, coll. 1878

Lichenalia complexa (exata by error) *see*
Selenopora complexa

Lichenalia (Selenopora) complexa *see*
Selenopora complexa

Lichenalia confusa Hall & Simpson

- 791 $\frac{6541}{1}$ TYPE: 2 specimens. *Lichenalia confusa* Hall & Simpson. Paleontology of New York. 1887. 6:204 (not figured).

Hamilton beds

Near Leroy N. Y.

C. D. Walcott, coll. 1878

Lichenalia constricta see *Fistulipora constricta*

Lichenalia cornuta Hall & Simpson

- 792 $\frac{6543}{1}$ TYPE *Lichenalia cornuta* Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 203 (not figured).

Hall. 7th annual report of the New York state geologist. 1888. pl. 15, fig. 6.

Hamilton beds

York N. Y.

C. Van Deloo, coll. 1878

Lichenalia crassa Hall

- 793 $\frac{6544}{1}$ TYPE *Trematopora crassa* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 152.

Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 21, 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 21, 22.

New Scotland beds

Schoharie N. Y.

J. Gebhard, purchase

Lichenalia cultellata Hall

- 794 $\frac{6545}{1}$ TYPE *Lichenalia cultellata* Hall. 3d annual report of the New York state geologist. 1884. p. 35.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 1, 2.

Hamilton beds

Fall brook,

4 miles east of Canandaigua lake, N. Y.

C. Van Deloo and M. Sheehy, coll. 1886

Lichenalia dissimilis see *Paleschara?* *dissimilis*

Lichenalia distans Hall

- 795 $\frac{6546}{1}$ TYPE *Lichenalia distans* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 157.

Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 8, 9.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 15, fig. 8, 9.

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

Lichenalia foliacea *see* *Ceramopora* (*Lichenalia*)
foliacea

Lichenalia (*Ceramopora*) *imbricella* *see*
Ceramopora imbricella

Lichenalia interaspera Hall & Simpson

796 $\frac{6547}{1}$ TYPE *Fistulipora interaspera* Hall & Simpson.
Paleontology of New York. 1887. 6:218 (not figured).

Lichenalia interaspera Simpson. 14th annual
report of the New York state geologist. 1895. pl. 22,
fig. 10.

Hamilton beds

Darien N. Y.

C. A. White, coll. 1860

Lichenalia maculosa Hall

797 $\frac{6548}{1}$ TYPE *Trematopora maculosa* Hall. 26th annual
report of the New York state museum of natural history.
1874. p. 106.

Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 14, fig. 1, 6, 8.

Lichenalia maculosa Hall & Simpson. Pale-
ontology of New York. 1887. v. 6, pl. 14, fig. 1, 6, 8.

New Scotland beds

Clarksville N. Y.

798 $\frac{6548}{2}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 14, fig. 3-5.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 14, fig. 3-5.

New Scotland beds

Clarksville N. Y.

Lichenalia operculata Hall & Simpson

799 $\frac{6549}{1}$ TYPE *Lichenalia operculata* Hall & Simpson.
Paleontology of New York. 1887. 6:205 (not figured).

Hall. 7th annual report of the New York state geol-
ogist. 1888. pl. 15, fig. 7.

Hamilton beds

York N. Y.

Lichenalia permarginata Hall

800 $\frac{6550}{1}$ TYPE *Lichenalia permarginata* Hall. Transactions of the Albany institute. 1881. 10:10 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 20.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 26, fig. 20.

Onondaga limestone Onondaga Valley N. Y.

C. A. White, coll. 1860

Lichenalia pustulosa see *Fistulipora pustulosa*.

Lichenalia ramosa Hall & Simpson

801 $\frac{6551}{1}$ TYPE: 2 specimens. *Lichenalia ramosa* Hall & Simpson. Paleontology of New York. 1887. 6:199 (not figured).

Hamilton beds West Williams Ont.

J. De Cew, coll. 1865

Lichenalia serialis Hall

802 $\frac{6552}{1}$ TYPE *Lichenalia torta* Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 6.

Lichenalia serialis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 6.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

803 $\frac{6552}{2}$ TYPE (*tortuosa* in error) Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 17.

Hall & Simpson. Paleontology of New York. 1887.

v. 6, pl. 13, fig. 17.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On block with *Callotrypa heteropora*, Pal. N. Y. v. 6, pl. 11, fig. 33.

Lichenalia subtrigona Hall & Simpson

804 $\frac{6553}{1}$ TYPE *Lichenalia subtrigona* Hall & Simpson. Paleontology of New York. 1887. 6:196 (not figured).

Hall. 7th annual report of the New York state geologist. 1888. pl. 15, fig. 3, 4.

Hamilton beds

West Williams Ont.

J. De Cew, coll. 1865

Lichenalia torta Hall

- 805 $\frac{6554}{1}$ TYPE *Lichenalia torta* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 157.
 Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 1.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 1.
 New Scotland beds Schoharie N. Y.
 J. Gebhard purchase
- 806 $\frac{6554}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 2.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 2.
 Coeymans limestone Schoharie N. Y.
 J. Gebhard purchase
- 807 $\frac{6554}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 3.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 3.
 Coeymans limestone Schoharie N. Y.
 J. Gebhard purchase
- 808 $\frac{6554}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 4, 5.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 4, 5.
 New Scotland beds Schoharie N. Y.
 J. Gebhard purchase
- 809 $\frac{6554}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 7.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 7.
 New Scotland beds Schoharie N. Y.
 J. Gebhard purchase
- Lichenalia torta* (*tortuosa* in error) *see* *Lichenalia serialis*

Lichenalia vesiculata Hall & Simpson

- 810 $\frac{6555}{1}$ TYPE *Lichenalia vesiculata* Hall & Simpson.
Paleontology of New York. 1887. 6: 198, pl. 59, fig. 1.
Hamilton beds Hill's gulch,
4 miles south of Leroy N. Y.
C. D. Walcott, coll. 1878
- 811 $\frac{6555}{2}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 57, fig. 14-19.
Hamilton beds York N. Y.
C. Van Deloo, coll. 1878

LOCULIPORA Hall & Simpson**Loculipora perforata** Hall

- 812 $\frac{6580}{1}$ TYPE *Fenestella perforata* Hall. 36th annual
report of the New York state museum of natural history.
1884. p. 65.
Fenestella (*Loculipora*) *perforata* Hall.
7th annual report of the New York state geologist. 1888.
pl. 10, fig. 1, 3, 5, 7, 8, 10, 12.
Hamilton beds Near Darien N. Y.
C. Van Deloo, coll. 1864
- 813 $\frac{6580}{2}$ TYPE? Hall. 7th annual report of the New York state
geologist. 1888. pl. 10, fig. 2.
Hamilton beds Near Alden, Erie co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
- 814 $\frac{6580}{3}$ TYPE Hall. 7th annual report of the New York state
geologist. 1888. pl. 10, fig. 9, 11, 13.
Hamilton beds Near Canandaigua lake, N. Y.

MONOTRYPA Nicholson

Monotrypa ? *spinosula* (in error) *see* *Monotrypa* ? *spinulosa*

Monotrypa ? *spinulosa* Hall & Simpson

- 815 $\frac{6600}{1}$ TYPE *Paleschara* ? *bilateralis* Hall. 2d annual
report of the New York state geologist. 1883. pl. 16,
fig. 25.
Monotrypa ? *spinosula* (in error) Hall & Simpson.
Paleontology of New York. 1887. v. 6, pl. 16,
fig. 25.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

MONOTRYPELLA Ulrich

Monotrypella densa Hall

- 816 $\frac{6620}{1}$ TYPE *Trematopora densa* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 105.

Trematopora (*Chaetetes*) *densa* Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 11.

Chaetetes (*Monotrypella*) *densus* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

NEMATAXIS Hall & Simpson

Nemataxis simplex Hall & Simpson

- 817 $\frac{6640}{1}$ TYPE *Nemataxis simplex* Hall & Simpson. Paleontology of New York. 1887. 6: 193, pl. 66, fig. 17, 18.

Hamilton beds Darien N. Y.

C. Van Deloo, coll. 1865

Paleschara ? *bilateralis* see *Paleschara* ? (*Lichenalia* ?) *bilateralis* and *Monotrypa* ? *spinulosa*

PALESCHARA Hall

Paleschara ? (Lichenalia ?) bilateralis Hall

- 818 $\frac{6660}{1}$ TYPE *Paleschara* ? *bilateralis* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 160.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 22, 23.

Paleschara ? (*Lichenalia* ?) *bilateralis* Hall and Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 22, 23.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Paleschara ? dissimilis Hall

- 819 $\frac{6661}{1}$ TYPE *Lichenalia dissimilis* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 158.

Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 10, 11.

Paleschara? dissimilis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 10, 11.

New Scotland beds Schoharie co. N. Y.

820 $\frac{6661}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 12, 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 12, 13.

New Scotland beds Schoharie co. N. Y.

J. Gebhard purchase

***Paleschara incrustans* Hall**

821 $\frac{6662}{1}$ TYPE *Paleschara incrustans* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 107.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 18, 19.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 18, 19.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

***Paleschara intercella* Hall**

822 $\frac{6663}{1}$ TYPE *Paleschara intercella* Hall. Transactions of the Albany institute. 1881. 10:179 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 237 (not figured).

Hall. 10th annual report of the New York state geologist. 1891. p. 37 (not figured).

Hamilton beds West Williams Ont.

J. De Cew, coll. 1865

823 $\frac{6663}{2}$ TYPE Hall. 10th annual report of the New York state geologist. 1891. p. 37 (not figured).

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

***Paleschara pertenuis* Hall**

824 $\frac{6664}{1}$ TYPE *Paleschara pertenuis* Hall. Transactions of the Albany institute. 1881. 10:179.

Paleschara ? ? (*Lichenalia* ?) *pertenuis* Hall. 3d annual report of the New York state geologist. 1884. p. 7 (not figured).

Paleschara pertenuis Hall. 10th annual report of the New York state geologist. 1891. p. 37 (not figured).

Hamilton beds Darien Center, Genesee co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

Paleschara ? ? (*Lichenalia* ?) *pertenuis*
see *Paleschara pertenuis*

***Paleschara* ? *radiata* Hall**

825 $\frac{6665}{1}$ TYPE *Paleschara* ? *radiata* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 160.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 13, 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 13, 14.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

***Paleschara reticulata* Hall**

826 $\frac{6666}{1}$ TYPE *Paleschara reticulata* Hall. Transactions of the Albany institute. 1881. 10:179.

Hall. 3d annual report of the New York state geologist. 1884. p. 6 (not figured).

Hall. 10th annual report of the New York state geologist. 1891. p. 38 (not figured).

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

On slab with *Fistulipora* ? *umbilicata*, Trans. Alb. inst. 10:185 (not figured).

***Paleschara variacella* Hall**

827 $\frac{6667}{1}$ TYPE *Paleschara variacella* Hall. Transactions of the Albany institute. 1881. 10:179 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 6 (not figured).

Hall & Simpson. Paleontology of New York. 1887. 6:237 (not figured).

Hall. 10th annual report of the New York state geologist. 1891. p. 39 (not figured).

Hamilton beds

York N. Y.

C. Van Deloo, coll. 1878

PHYLLOPORINA Ulrich

Phylloporina fenestrata Hall (sp.)

- 828 $\frac{6680}{1}$ TYPE Retepora fenestrata Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 178, pl. 2, fig. 1a-d.

Trenton limestone

Lowville, Lewis co. N. Y.

Phylloporina incepta Hall (sp.)

- 829 $\frac{6681}{1}$ TYPE Retepora incepta Hall. Paleontology of New York. 1847. 1:15, pl. 4, fig. 1a, 1b.

Chazy limestone

Chazy, Clinton co. N. Y.

POLYPORA McCoy

Polypora (sp. indet.)

- 830 $\frac{6700}{1}$ TYPE Fenestella sp. ? Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 13.

Fenestella (Polypora) (sp. indet.) Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 13.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Callotrypa paucipora, Pal. N. Y. v. 6, pl. 23, fig. 21.

Polypora arta Hall

- 831 $\frac{6701}{1}$ TYPE Fenestella arta Hall. 32d annual report of the New York state museum of natural history. 1879. p. 163.

Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 4, 5.

Fenestella (Polypora) arta Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 4, 5.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

- 832 $\frac{6701}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 6, 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 6, 7.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of P. arta, pl. 18, fig. 4, 5.

Polypora aspectans Hall

- 833 $\frac{6703}{1}$ TYPE *Fenestella aspectus* (in error) Hall. 36th annual report of the New York state museum of natural history. 1883. p. 59.

Fenestella (*Polypora*) *aspectans* Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 10-14.

Hamilton beds

Bellona, Yates co. N. Y.

Polypora carinella Hall

- 834 $\frac{6704}{1}$ TYPE *Fenestella* (*Polypora*) (n. sp.?) Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 1, 2.

Fenestella (*Polypora*) *carinella* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 1, 2.

Onondaga limestone

Near Buffalo N. Y.

C. A. White, coll. 1860

Polypora celsipora Hall

- 835 $\frac{6705}{1}$ TYPE *Fenestella celsipora* Hall. Transactions of the Albany institute. 1881. 10: 24 (abstract).

Fenestella (*Polypora*) *celsipora*? Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 5-7.

Fenestella (*Polypora*) *celsipora* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 5-7.

Onondaga limestone

Near Leroy N. Y.

C. A. White, coll. 1861

- 836 $\frac{6705}{2}$ TYPE ? Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 8.

Onondaga limestone

Walpole Ont.

C. D. Walcott, coll. 1878

- 837 $\frac{6705}{3}$ TYPE ?? Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 9, 10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 9, 10.

Onondaga limestone

Near Caledonia,

Livingston co. N. Y.

C. A. White, coll. 1860

- 838 $\frac{6705}{4}$ **HYPOTYPE** Hall. 5th annual report of the New York state geologist. 1886. pl. 41, fig. 17, 21.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 41, fig. 17, 21.

Onondaga limestone Cayuga Ont.

C. D. Walcott, coll. 1878

Polypora compacta Hall

- 839 $\frac{6706}{1}$ **TYPE** Fenestella compacta Hall. 32d annual report of the New York state museum of natural history. 1879. p. 163.

Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 3.

Fenestella (Polypora) compacta Hall & Simpson. Paleontology of New York: 1887. v. 6, pl. 18, fig. 3.

New Scotland beds Near Clarksville N. Y.

Polypora compressa Hall

- 840 $\frac{6707}{1}$ **TYPE** Fenestella compressa Hall. 32d annual report of the New York state museum of natural history. 1879. p. 164.

Fenestella planiramosa Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 14, 15.

Fenestella (Polypora) compressa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 14, 15.

New Scotland beds Near Clarksville N. Y.

- 841 $\frac{6707}{2}$ **TYPE** Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 17.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 18, fig. 17.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 842 $\frac{6707}{3}$ **TYPE** Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 18.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 18, fig. 18.

New Scotland beds Near Clarksville N. Y.

Polypora crebescens Hall

- 843 $\frac{6708}{1}$ TYPE *Fenestella crebescens* Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 45, fig. 20, 21.

Fenestella (*Polypora*) *crebescens* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 45, fig. 20, 21.

Onondaga limestone Caledonia N. Y.

Polypora distans Hall

- 844 $\frac{6709}{1}$ TYPE *Fenestella distans* Hall. Transactions of the Albany institute. 1881. 10:24 (abstract).

Fenestella (*Polypora*) *distans* Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 3.

Onondaga limestone Near Buffalo N. Y.

- 845 $\frac{6709}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 4.

Onondaga limestone Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of *Clonopora fasciculata*, Pal. N. Y. v. 6, pl. 66, fig. 1.

- 846 $\frac{6709}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 5.

Onondaga limestone Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of *Clonopora fasciculata*, Pal. N. Y. v. 6, pl. 66, fig. 1.

- 847 $\frac{6709}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 6, 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 6, 7.

Onondaga limestone Near Buffalo N. Y.

- 848 $\frac{6709}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 8.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 37, fig. 8.

Onondaga limestone Near Buffalo N. Y.

Polypora elongata Hall

- 849 $\frac{6710}{1}$ TYPE *Fenestella* (*Polypora*) *elongata* Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 3, 4.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 42, fig. 3, 4.

Onondaga limestone Onondaga Valley N. Y.
C. A. White, coll. 1861

Polypora eudora Hall

- 850 $\frac{6711}{1}$ TYPE *Fenestella eudora* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 165.

Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 3, 4.

Fenestella (*Polypora*) *eudora* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 3, 4.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

- 851 $\frac{6711}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 5.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 19, fig. 5.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

- 852 $\frac{6711}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 6, 7.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 19, fig. 6, 7.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Polypora flabelliformis Hall

- 853 $\frac{6712}{1}$ TYPE *Fenestella flabelliformis* Hall. Transactions of the Albany institute. 1881. 10:23 (abstract).
Fenestella (Polypora) flabelliformis Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 11, 12.
 Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 37, fig. 11, 12.
 Onondaga limestone Onondaga Valley N. Y.
 C. A. White, coll. 1860

Polypora largissima Hall

- 854 $\frac{6713}{1}$ TYPE *Fenestella largissima* Hall. Transactions of the Albany institute. 1881. 10:22 (abstract).
Fenestella (Polypora) largissima Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 8, 9.
 Hall & Simpson. Paleontology of New York. 1887.
 v. 6, pl. 34, fig. 8, 9.
 Onondaga limestone Central New York
 Pickett collection

Polypora latitruncata Hall

- 855 $\frac{6714}{1}$ TYPE *Fenestella latitruncata* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 58.
Fenestella (Polypora) latitruncata Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 1, 8.
 Hamilton beds Alden N. Y.
- 856 $\frac{6714}{2}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 2, 7.
 Hamilton beds West Williams Ont.
 J. De Cew, coll. 1865
- 857 $\frac{6714}{3}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 3, 6.
 Hamilton beds Near Alden N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 858 $\frac{6714}{4}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 4.
 Hamilton beds Near Alden N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1878

- 859 $\frac{6714}{5}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 5.

Hamilton beds

Darien Center, Genesee co. N. Y.

C. A. White, coll. 1864

- 860 $\frac{9714}{6}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 9.

Hamilton beds

Near Darien Center N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

Polypora lilaea Hall

- 861 $\frac{6715}{1}$ TYPE Polypora lilaea Hall. 26th annual report of the New York state museum of natural history. 1874. p. 96.

Retepora (n. sp.) Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 21, 22.

Fenestella (Polypora) lilaea Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 21, 22.

New Scotland beds

Schoharie N. Y.

Polypora multiplex Hall

- 862 $\frac{6716}{1}$ TYPE Fenestella multiplex Hall. 36th annual report of the New York state museum. 1883. p. 57.

Fenestella (Polypora) multiplex Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 12, 13.

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865

- 863 $\frac{6716}{2}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 14.

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865

Polypora obliqua Hall & Simpson

- 864 $\frac{6717}{1}$ TYPE Fenestella arta Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 8, 9.

Fenestella (Polypora) obliqua Hall & Simpson. Paleontology of New York. 1887. 6:64, pl. 18, fig. 8, 9.

New Scotland beds Near Clarksville, Albany co. N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of *Fistulipora parasitica*, Pal. N. Y. v. 6, pl. 14, fig. 13, 14.

Polypora paxillata Hall

- 865 $\frac{6718}{1}$ TYPE *Fenestella paxillata* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 164.

Fenestella papillata (in error) Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 10, 11.

Fenestella (*Polypora*) *paxillata* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 10, 11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Fenestella curvijunctura*, Pal. N. Y. v. 6, pl. 46, fig. 1, 2, and of *F. quadrula*, pl. 21, fig. 19, 20.

- 866 $\frac{6718}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 12.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Polypora perangulata Hall

- 867 $\frac{6719}{1}$ TYPE *Fenestella perangulata* Hall. Transactions of the Albany institute. 1881. 10: 23 (abstract).

Fenestella (*Polypora*) *perangulata* Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 13, 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 13, 14.

Onondaga limestone Caledonia N. Y.

Polypora propria Hall

- 868 $\frac{6720}{1}$ TYPE *Fenestella propria* Hall. Transactions of the Albany institute. 1881. 10: 22 (abstract).

Fenestella propria Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 10, 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 10, 11.

Onondaga limestone Near Buffalo N. Y.

- 869 $\frac{6720}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 12.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 12.
Onondaga limestone Near Buffalo N. Y.
- 870 $\frac{6720}{3}$ PLASTOTYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 13.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 13.
Onondaga limestone Near Buffalo N. Y.
- Polypora quadrangula Hall**
- 871 $\frac{6721}{1}$ TYPE Fenestella quadrangula Hall. 36th annual report of the New York state museum of natural history. 1883. p. 68.
Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 7-13.
Hamilton beds Darien, Genesee co. N. Y.
C. Van Deloo, coll. 1865
On slab with type of Stictopora limata, Pal. N. Y. v. 6, pl. 61, fig. 16.
- Polypora rigida Hall**
- 872 $\frac{6722}{1}$ TYPE Fenestella rigida Hall. Transactions of the Albany institute. 1881. 10: 22 (abstract).
Fenestella (Polypora) rigida Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 1, 2.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 1, 2.
Onondaga limestone Thompson's lake, Albany co. N. Y.
- 873 $\frac{6722}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 3.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 3.
Onondaga limestone Thompson's lake, N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

POLYPORELLA Simpson

Polyporella fistulata Hall (sp.)

- 874 $\frac{6740}{1}$ TYPE *Fenestella fistulata* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 59.

Fenestella (Polypora) fistulata Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 1, 11-16.

Hamilton shales

Near Alden N. Y.

C. Van Deloo, coll. 1874

- 875 $\frac{6740}{2}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 2, 3, 5.

Hamilton beds

Near Alden N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

- 876 $\frac{6740}{3}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 4.

Hamilton beds

Near Darien N. Y.

C. A. White and C. Van Deloo, coll. 1864

- 877 $\frac{6740}{4}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 6.

Hamilton beds Menteth's point, Canandaigua lake, N.Y.

C. A. White and C. Van Deloo, coll. 1860

- 878 $\frac{6740}{5}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 7.

Hamilton beds

Darien N. Y.

C. Van Deloo, coll. 1865

On slab with type of *Rhombopora immersa*, Pal. N. Y. v. 6, pl. 56, fig. 11.

- 879 $\frac{6740}{6}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 9.

Hamilton beds

Darien N. Y.

C. A. White, coll. 1860

PRISMOPORA Hall

Prismopora dilatata Hall

- 880 $\frac{6750}{1}$ TYPE: PLASTOTYPE *Prismopora dilatata* Hall. Transactions of the Albany institute. 1881. 10:193.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 13, 14.

Hamilton beds

Leonardsville, Madison co. N. Y.

F. B. Meek, R. P. Whitfield and

C. Van Deloo, coll. 1857

Prismopora paucirama Hall

- 881 $\frac{6751}{1}$ TYPE *Prismopora paucirama* Hall. Transactions of the Albany institute. 1881. 10:17 (abstract).

Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 29, fig. 16, 17.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 29, fig. 16, 17.

Onondaga limestone Thompson's lake, N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Prismopora sparsipora Hall

- 882 $\frac{6752}{1}$ TYPE *Thallostigma sparsipora* Hall. Transactions of the Albany institute. 1881. 10:13 (abstract).

Prismopora sparsipora Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 32, fig. 24-26.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 32, fig. 24-26.

Onondaga limestone Erie county, N. Y.

- 883 $\frac{6752}{2}$ HYPOTYPE Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 32, fig. 27.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 32, fig. 27.

Onondaga limestone Erie county, N. Y.

Ptilionella nodata see *Reptaria nodata*

PTILODICTYA Lonsdale**Ptilodictya lirata** Hall

- 884 $\frac{6760}{1}$ TYPE *Escharopora lirata* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 100.

Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 3.

Ptilodictya lirata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 3; pl. 23A, fig. 20.

New Scotland beds Near Clarksville N. Y.

Ptilodictya nebulosa Hall

- 885 $\frac{6761}{1}$ TYPE *Escharopora nebulosa* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 99.

Escharopora (*Ptilodictya*) *tenuis*?
Hall. 2d annual report of the New York state geologist.
1883. pl. 17, fig. 13.

Ptilodictya nebulosa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 13.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

886 $\frac{6761}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 14, 15.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 14, 15.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

887 $\frac{6761}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 16

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

888 $\frac{6761}{4}$ TYPE *Paleschara ? foliata* Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 18.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

***Ptilodictya parallela* Hall & Simpson**

889 $\frac{6762}{1}$ TYPE *Ptilodictya parallela* Hall & Simpson. Paleontology of New York. 1887. 6: 270, pl. 61, fig. 7, 8.

Hamilton beds Fall brook, Ontario co. N. Y.

***Ptilodictya plumea* Hall & Simpson**

890 $\frac{6763}{1}$ TYPE *Ptilodictya plumea* Hall & Simpson. Paleontology of New York. 1887. 6: 271, pl. 61, fig. 9-12.

Hamilton beds Hamburg-on-the-Lake N. Y.

***Ptilodictya retiformis* Hall & Simpson**

891 $\frac{6764}{1}$ TYPE *Ptilodictya retiformis* Hall & Simpson. Paleontology of New York. 1887. 6: 272, pl. 61, fig. 13.

Hamilton beds Alden N. Y.

Ptilodictya scutulata Hall

- 892 $\frac{6765}{1}$ TYPE *Stictopora?* *scutulata* Hall. Transactions of the Albany institute. 1881. 10:191 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 47 (not figured).

Ptilodictya scutulata Hall & Simpson. Paleontology of New York. 1887. 6:272 (not figured).

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865.

Ptilodictya tenuis Hall

- 893 $\frac{6766}{1}$ TYPE *Escharapora tenuis* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 99.

Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 7, 8.

Ptilodictya tenuis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 7, 8.

- 894 $\frac{6766}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 11.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

PTILOPORA McCoy**Ptilopora nodosa** Hall

- 895 $\frac{6770}{1}$ TYPE *Ptilopora nodosa* Hall. Transactions of the Albany institute. 1881. 10:196.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 25.

Hamilton beds

Alden N. Y.

C. Van Deloo, coll. 1874

Ptilopora striata Hall

- 896 $\frac{6771}{1}$ TYPE *Ptilopora striata* Hall. Transactions of the Albany institute. 1881. 10:196.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 30-32.

Hamilton beds

Moscow N. Y.

- 897 $\frac{6771}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 33.

Hamilton beds

West Williams Ont.

J. De Cew, coll. 1865

PTILOPORINA Hall

Ptiloporina disparilis Hall & Simpson

- 898 $\frac{6780}{1}$ PLASTOTYPE *Fenestella* (*Ptiloporina*) *disparilis* Hall & Simpson. *Paleontology of New York*. 1887. 6: 173, pl. 43, fig. 7.
Onondaga limestone Walpole Ont.

Ptiloporina pinnata Hall & Simpson

- 899 $\frac{6781}{1}$ TYPE *Ptiloporina pinnata* Hall & Simpson. *Paleontology of New York*. 1887. 6: 172, pl. 43, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

REPTARIA Rolle

Reptaria nodata Hall

- 900 $\frac{6790}{1-3}$ TYPES: 3 specimens. *Ptilionella nodata* Hall. *Transactions of the Albany institute*. 1881. 10: 195 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 57 (not figured).

Reptaria nodata Hall & Simpson. *Paleontology of New York*. 1887. 6: 276 (not figured).

Hamilton beds Western New York

Retepora (n. sp.) *see* *Polypora lilaea*

Retepora fenestrata see *Phylloporina fenestrata*

Retepora incepta see *Phylloporina incepta*

RETEPORINA d'Orbigny

Reteporina perundulata Hall

- 901 $\frac{6800}{1}$ TYPE *Fenestella perundulata* Hall. 36th annual report of the New York state museum of natural history. 1884. p. 63.

Fenestella (*Reteporina*) *perundulata* Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 1, 13.

Hamilton beds Moscow N. Y.

- 902 $\frac{6800}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 2, 4, 11.

Hamilton beds Moscow N. Y.

- 903 $\frac{6800}{3}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 3, 7.

Hamilton beds Moscow N. Y.

- 904 $\frac{6800}{4}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 5.
Hamilton beds Moscow N. Y.
- 905 $\frac{6800}{5}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 6, 8, 14.
Hamilton beds Moscow N. Y.
- 906 $\frac{6800}{6}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 9.
Hamilton beds West Williams Ont.
J. De Cew, coll. 1865
- 907 $\frac{6800}{7}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 10.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860
- 908 $\frac{6800}{8}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 12.
Hamilton beds York N. Y.
C. Van Deloo, coll. 1865

Reteporina rhombifera Hall

- 909 $\frac{6801}{1}$ TYPE *Fenestella rhombifera* Hall. Transactions of the Albany institute. 1881. 10:32 (abstract).
Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 50, fig. 18.
Fenestella (*Reteporina*) *rhombifera*
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 50, fig. 18.
Onondaga limestone De Cewville Ont.

Reteporina striata Hall

- 910 $\frac{6802}{1}$ TYPE *Fenestella striata* Hall. 36th annual report of the New York state museum of natural history. 1884. p. 72.
Fenestella (*Reteporina*) *striata* Hall.
6th annual report of the New York state geologist. 1887. pl. 3, fig. 1, 2.
Hamilton beds Moscow N. Y.
- 911 $\frac{6802}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 3.
Hamilton beds Moscow N. Y.

- 912 $\frac{6802}{3}$ TYPE: PLASTOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 4.
Hamilton beds Moscow N. Y.
- 913 $\frac{6802}{4}$ TYPE: PLASTOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 5.
Hamilton beds Moscow N. Y.
- 914 $\frac{6802}{5}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 6.
Hamilton beds Moscow N. Y.

RHINIDICTYA Ulrich

Rhinidictya fenestrata Hall (sp.)

- 915 $\frac{6810}{1}$ TYPE *Stictopora fenestrata* Hall. Paleontology of New York. 1843. 1:16, pl. 4, fig. 4c.
Chazy limestone Chazy, Clinton co. N. Y.

Rhinidictya granulosa Hall

- 916 $\frac{6811}{1}$ TYPE *Escharopora* (*Ptilodictya*) *lirata* Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 6.

Rhinidictya? *granulosa* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 6; pl. 23 A, fig. 18.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Rhombopora regularis*, Pal. N. Y. v. 6, pl. 13, fig. 1.

- 917 $\frac{6811}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23 A, fig. 19.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of *Unitrypa praecursor*, Pal. N. Y. v. 6, pl. 21, fig. 16.

RHOMBOPORA Meek

Rhombopora bispinulata Hall (sp.)

- 918 $\frac{6820}{1}$ TYPE *Callopora bispinulata* Hall. Transactions of the Albany institute. 1881. 10:182.

Trematopora (*Orthopora*) *bispinulata* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 27; pl. 56, fig. 18.

Hamilton beds

Moscow N. Y.

C. Van Deloo, coll. 1865

- 919 $\frac{6820}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 55, fig. 28.
Hamilton beds Darien, Genesee co. N. Y.
- 920 $\frac{6820}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 55, fig. 29; pl. 56, fig. 17.
Hamilton beds Darien N. Y.
- 921 $\frac{6820}{4}$ TYPE Hall & Simpson. Paleontology of New York. 1887.
pl. 55, fig. 30; pl. 56, fig. 16.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865.

Rhombopora canaliculata Hall (sp.)

- 922 $\frac{6821}{1}$ TYPE Trematopora canaliculata Hall. 32d
annual report of the New York state museum of natural
history. 1879. p. 151.
Trematopora? canaliculata Hall. 2d annual
report of the New York state geologist. 1883. pl. 11,
fig. 12; pl. 23, fig. 9.
Trematopora (Orthopora) canaliculata
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 11, fig. 12; pl. 23, fig. 9.
Hamilton beds Near Reidsville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Callotrypa heteropora, Pal.
N. Y. v. 6, pl. 13, fig. 8 and Rhombopora ovatipora,
Pal. N. Y. v. 6, pl. 11, fig. 9, 10.

Rhombopora carinata Hall & Simpson (sp.)

- 923 $\frac{6822}{1}$ TYPE Trematopora (Orthopora) carinata
Hall & Simpson. Paleontology of New York. 1887.
6: 179, pl. 55, fig. 2; pl. 56, fig. 3.
Hamilton beds West Williams Ont.
J. De Cew, coll. 1865
On slab with type of Acanthoclema hamiltonense,
Pal. N. Y. v. 6, pl. 55, fig. 18, 19.

Rhombopora elongata Hall & Simpson (sp.)

- 924 $\frac{6823}{1}$ TYPE Trematopora (Orthopora) elongata
Hall & Simpson. Paleontology of New York. 1887.
6: 183, pl. 55, fig. 11.
Hamilton beds Canandaigua lake, N. Y.

- 925 $\frac{6823}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 56, fig. 15.

Hamilton beds Owasco lake, Cayuga co. N. Y.

G. B. Simpson, coll. 1863

Rhombopora granilinea Hall & Simpson (sp.)

- 926 $\frac{6824}{1}$ TYPE Trematopora (Orthopora) granilinea Hall & Simpson. Paleontology of New York, 1887. v. 6, pl. 23, fig. 2 (not described).

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Callotrypa heteropora*, Pal. N. Y. v. 6, pl. 13, fig. 5.

Rhombopora hexagona Hall & Simpson (sp.)

- 927 $\frac{6825}{1}$ TYPE Trematopora (Orthopora) hexagona Hall & Simpson. Paleontology of New York. 1887. 6: 178, pl. 55, fig. 8; pl. 56, fig. 2.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

Rhombopora immersa Hall & Simpson (sp.)

- 928 $\frac{6826}{1}$ TYPE Trematopora (Orthopora) immersa Hall & Simpson. Paleontology of New York. 1887. 6: 185, pl. 56, fig. 11.

Hamilton beds

Darien N. Y.

C. Van Deloo, coll. 1865

Rhombopora lineata Hall & Simpson (sp.)

- 929 $\frac{6827}{1}$ TYPE Trematopora (Orthopora) lineata Hall & Simpson. Paleontology of New York. 1887. 6: 181, pl. 55, fig. 3, 4; pl. 56, fig. 10.

Hamilton beds

Darien Center N. Y.

- 930 $\frac{6827}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 6.

Hamilton shales

Ogden's ferry, Cayuga lake, N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Rhombopora ornata Hall & Simpson (sp.)

- 931 $\frac{6828}{1}$ TYPE Trematopora (Orthopora) ornata Hall & Simpson. Paleontology of New York. 1887. 6: 184, pl. 55, fig. 1; pl. 56, fig. 4.

Hamilton beds

Geneseo, Livingston co. N. Y.

C. Van Deloo, coll. 1865

Rhombopora ovatipora Hall (sp.)

- 932 $\frac{6829}{1}$ TYPE *Trematopora ovatipora* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 151.

Trematopora? *ovatipora* Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 9, 10.

Trematopora (*Orthopora*) *ovatipora* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 9, 10; pl. 23, fig. 5.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Rhombopora canaliculata* Pal. N. Y. v. 6, pl. 11, fig. 12.

- 933 $\frac{6829}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Diamesopora constricta*, Pal. N. Y. v. 6, pl. 10, fig. 14, 15.

Rhombopora parallela Hall (sp.)

- 934 $\frac{6830}{1}$ TYPE *Trematopora parallela* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 152.

Trematopora (*Orthopora*) *parallela* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 7, 8.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Callopora cellulosa*, Pal. N. Y. v. 6, pl. 12, fig. 7.

Rhombopora regularis Hall (sp.)

- 935 $\frac{6831}{1}$ TYPE *Trematopora regularis* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 106.

Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 2.

Trematopora (*Orthopora*) *regularis*
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 11, fig. 2.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

936 $\frac{6831}{2}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 11, fig. 7.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 11, fig. 7.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Thamniscus variolatus*, Pal.
N. Y. v. 6, pl. 22, fig. 46.

937 $\frac{6831}{3}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 11, fig. 8.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 11, fig. 8.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Callotrypa paucipora*, Pal.
N. Y. v. 6, pl. 23, fig. 21.

938 $\frac{6831}{4}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 13, fig. 1.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 13, fig. 1.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

939 $\frac{6831}{5}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 13, fig. 2.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 13, fig. 2.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

940 $\frac{6831}{6}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 13, fig. 3.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 13, fig. 3.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 941 $\frac{6831}{7}$ TYPE Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 23, fig. 1.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of *Coelocaulis venusta*, Pal.
N. Y. v. 6, pl. 12, fig. 21, 22.

- 942 $\frac{6831}{8}$ TYPE Hall & Simpson. Paleontology of New York. 1887
v. 6, pl. 26, fig. 5, 6.

Onondaga limestone

Caledonia, Livingston co. N. Y.

C. A. White, coll. 1860

Rhombopora reticulata Hall & Simpson (sp)

- 943 $\frac{6832}{1}$ TYPE *Trematopora* (*Orthopora*) *reticulata*
Hall & Simpson. Paleontology of New York. 1887.
6: 179, pl. 55, fig. 9; pl. 56, fig. 5.

Hamilton beds

Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

On slab with type of *Stictopora incisurata*, Pal.
N. Y. v. 6, pl. 60, fig. 2.

Rhombopora rhombifera Hall (sp.)

- 944 $\frac{6833}{1}$ TYPE *Trematopora rhombifera* Hall. 26th annual
report of the New York state museum of natural
history. 1874. p. 103.

Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 11, fig. 15a.

Trematopora (*Orthopora*) *rhombifera*
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 11, fig. 15a.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 945 $\frac{6833}{2}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 11, fig. 17.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 11, fig. 17.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 946 $\frac{6833}{3}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 11, fig. 18.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 11, fig. 18.

New Scotland beds

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 947 $\frac{6833}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 19.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 19.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 948 $\frac{6833}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 20; pl. 13, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 20; pl. 13, fig. 11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 949 $\frac{6833}{6}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Callopora cellulosa*, Pal. N. Y. v. 6, pl. 12, fig. 7.

- 950 $\frac{6833}{7}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 12.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

Rhombopora scutulata Hall (sp.)

- 951 $\frac{6834}{1}$ TYPE *Trematopora scutulata* Hall. Transactions of the Albany institute. 1881. 10:6 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 7, 8.

Trematopora (*Orthopora*) *scutulata* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 26, fig. 7, 8.

Onondaga limestone Central New York

Rhombopora subquadrata Hall (sp.)

- 952 $\frac{6835}{1}$ TYPE *Trematopora subquadrata* Hall. Transactions of the Albany institute. 1881. 10:181.

Trematopora (*Orthopora*) *subquadrata* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 10; pl. 56, fig. 1.

Hamilton beds Darien Center, N. Y.

- 953 $\frac{6835}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 56, fig. 6.

Hamilton beds

Darien Center N. Y.

Rhombopora tortalineae Hall & Simpson (sp.)

- 954 $\frac{6836}{1}$ TYPE Trematopora (Orthopora) tortalineae
Hall & Simpson. Paleontology of New York. 1887.
6: 180, pl. 56, fig. 9.

Hamilton beds Hamburg-on-the-Lake, Erie co. N. Y.

Rhombopora transversa Hall (sp.)

- 955 $\frac{6837}{1}$ HYPOTYPE Trematopora transversa Hall. Trans-
actions of the Albany institute. 1881. 10: 180.

Rhombopora transversa Simpson. 14th annual
report of the New York state geologist. 1895. pl. 19,
fig. 13.

Hamilton beds

West Hamburg, Erie co. N. Y.

SELENOPORA Hall

Selenopora complexa Hall

- 956 $\frac{6850}{1}$ TYPE Lichenalia complexa (exata by error) Hall.
Transactions of the Albany institute. 1881. 10: 11
(abstract).

Selenopora complexa Hall 5th annual report
of the New York state geologist. 1886. pl. 31, fig. 19.

Lichenalia (Selenopora) complexa Hall
& Simpson. Paleontology of New York. 1887. v. 6,
pl. 31, fig. 19.

Onondaga limestone

Onondaga Valley N. Y.

C. A. White, coll. 1860

- 957 $\frac{6850}{2}$ TYPE Hall. 5th annual report of the New York state
geologist. 1886. pl. 31, fig. 20.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 31, fig. 20.

Onondaga limestone

Onondaga Valley N. Y.

C. A. White, coll. 1860

SEMIOPORA Hall

Semiopora bistigmata Hall

- 958 $\frac{6860}{1}$ TYPE Semiopora bistigmata Hall Transactions
of the Albany institute. 1881. 10: 193

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 62 fig. 27-29.

Hamilton beds

West Williams Ont.

STICTOPORA Hall

Stictopora alternata Hall & Simpson

- 959 $\frac{6870}{1}$ TYPE *Stictopora alternata* Hall & Simpson.
Paleontology of New York. 1887. v. 6, pl. 23 A, fig. 21.
Helderbergian Clarksville N. Y.

Stictopora angularis Hall & Simpson

- 960 $\frac{6871}{1}$ TYPE *Stictopora angularis* Hall & Simpson.
Paleontology of New York. 1887. 6:252, pl. 61, fig. 23.
Hamilton beds Near Leroy N. Y.
C. D. Walcott, coll. 1878

Stictopora bifurcata Hall & Simpson

- 961 $\frac{6872}{1}$ TYPE *Stictopora bifurcata* Hall & Simpson. Pale-
ontology of New York. 1887. 6:254, pl. 63, fig. 17.
Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Stictopora crenulata Hall

- 962 $\frac{6873}{1}$ TYPE *Stictopora crenulata* Hall. 3d annual report
of the New York state geologist. 1884. p. 44.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 60, fig. 22.
Hamilton shales Alden N. Y.
C. Van Deloo, coll. 1874

Stictopora dichotoma see *Stictopora subcarinata*

Stictopora divergens Hall & Simpson

- 963 $\frac{6874}{1}$ TYPE *Stictopora divergens* Hall & Simpson.
Paleontology of New York. 1887. 6:257, pl. 63, fig. 18, 19.
Hamilton beds Darien Center N. Y.
On slab with type of *Acanthoclema sulcatum*, Pal.
N. Y. v. 6, pl. 55, fig. 7.
Stictopora fenestrata see *Rhinidictya fenestrata*

Stictopora fruticosa Hall

- 964 $\frac{6875}{1}$ TYPE *Stictopora fruticosa* Hall. Transactions
of the Albany institute. 1881. 10:14 (abstract).
Hall. 2d annual report of the New York state geologist.
1883. pl. 25, fig. 12-14.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 28, fig. 12-14.
Onondaga limestone Leroy N. Y.

Stictopora granatula Hall & Simpson

- 965 $\frac{6876}{1}$ TYPE *Trematopora rhombifera* Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 16.

Stictopora granatula Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 16; pl. 23A, fig. 17.

New Scotland beds

Near Clarksville N. Y.

Stictopora granifera Hall

- 966 $\frac{6877}{1}$ TYPE *Stictopora granifera* Hall. Transactions of the Albany institute. 1881. 10:191.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 1.

Hamilton beds

Near Pavilion, Genesee co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 967 $\frac{6877}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 2.

Hamilton beds

Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 968 $\frac{6877}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 3.

Hamilton beds

York N. Y.

- 969 $\frac{6877}{4}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 5.

Hamilton beds

York N. Y.

C. Van Deloo, coll. 1874

- 970 $\frac{6877}{5}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 6.

Hamilton beds

Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Stictopora incisurata Hall

- 971 $\frac{6878}{1}$ TYPE *Stictopora incisurata* Hall. Transactions of the Albany institute. 1881. 10:189.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 1.

Hamilton beds

Near Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 972 $\frac{6878}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 2.

Hamilton beds

Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 973 $\frac{6878}{3}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 3.
Hamilton beds Near Lodi landing, Seneca lake, N.Y.
J. W. Hall and C. Van Deloo, coll. 1866
On slab with types of *Stictopora incisurata*, Pal.
N. Y. v. 6, pl. 60, fig. 11 and *Aerogenia prolifera*, pl.
63, fig. 12.
- 974 $\frac{6878}{4}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 7.
Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 975 $\frac{6878}{5}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 8.
Hamilton beds Fall brook, Gorham, Ontario co. N. Y.
- 976 $\frac{6878}{6}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 9, 10.
Hamilton beds Near Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 977 $\frac{6878}{7}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 11.
Hamilton beds Near Lodi landing, Seneca lake, N.Y.
J. W. Hall and C. Van Deloo, coll. 1866
On slab with type of pl. 60, fig. 3.
- 978 $\frac{6878}{8}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 12.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871
- 979 $\frac{6878}{9}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 13, 14.
Hamilton beds Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- 980 $\frac{6878}{10}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 15.
Hamilton beds Near Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 981 $\frac{6878}{11}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 60, fig. 16.
Hamilton beds Geneseo N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 982 $\frac{6878}{12}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 17.

Hamilton beds

Geneseo N. Y.

C. A. White and C. Van Deloo, coll. 1860

On slab with type of *Taeniopora exigua*, Pal. N. Y. v. 6, pl. 62, fig. 15.

***Stictopora incrassata* Hall**

- 983 $\frac{6879}{1}$ TYPE *Stictopora incrassata* Hall. Transactions of the Albany institute. 1881. 10:190.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 1, 4-6.

Hamilton beds

Near Menteth's point,
Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 984 $\frac{6879}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 2, 3.

Hamilton beds

West Williams Ont.

***Stictopora interstriata* Hall**

- 985 $\frac{6880}{1}$ TYPE *Stictopora interstriata* Hall. Transactions of the Albany institute. 1881. 10:191.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 7-10.

Hamilton beds Fall brook, Gorham, Ontario co. N.Y.

- 986 $\frac{6880}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 11.

Hamilton beds

Near Alden N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

- 987 $\frac{6880}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 12.

Hamilton beds

Near Alden N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

On slab with type of pl. 62, fig. 11.

***Stictopora investis* Hall**

- 988 $\frac{6881}{1}$ TYPE *Stictopora invertis* Hall. Transactions of the Albany institute. 1881. 10:15 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 24-26.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 24-26.

Onondaga limestone

Clarksville N. Y.

Stictopora limata Hall & Simpson

- 989 $\frac{6882}{1}$ TYPE *Stictopora limata* Hall & Simpson. Paleontology of New York. 1887. 6: 250, pl. 61, fig. 14, 15.
Hamilton beds Darien Center N. Y.
- 990 $\frac{6882}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 16.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Stictopora linearis Hall

- 991 $\frac{6883}{1}$ TYPE *Stictopora linearis* Hall. Transactions of the Albany institute. 1881. 10: 15 (abstract).
Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 4.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 4.
Onondaga limestone Leroy N. Y.
- 992 $\frac{6883}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 5.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 5.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of *Acanthoclema alternatum*, Pal. N. Y. v. 6, pl. 25, fig. 8-10.

Stictopora ovata Hall & Simpson

- 993 $\frac{6884}{1}$ TYPE *Stictopora ovata* Hall & Simpson. Paleontology of New York. 1887. 6: 248, pl. 63, fig. 24.
Hamilton beds Canandaigua lake, N. Y.

Stictopora palmipes Hall

- 994 $\frac{6885}{1}$ TYPE *Stictopora palmipes* Hall. Transactions of the Albany institute. 1881. 10: 189.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 19, 20.
Hamilton beds Pavilion, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Stictopora papillosa Hall

- 995 $\frac{6886}{1}$ TYPE *Stictopora papillosa* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 161.
Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 12.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 13, fig. 12; pl. 23A, fig. 16.

Helderbergian Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

996 $\frac{6886}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 13.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 13, fig. 13.

Helderbergian Near Clarksville N. Y.

Stictopora perarcta Hall

997 $\frac{6887}{1}$ TYPE *Stictopora perarcta* Hall. Transactions of the Albany institute. 1881. 10: 15 (abstract).

Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 29, fig. 36, 37.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 29, fig. 36, 37.

Onondaga limestone Onondaga Valley, N. Y.

Stictopora permarginata Hall

998 $\frac{6888}{1}$ TYPE *Stictopora permarginata* Hall. Transactions of the Albany institute. 1881. 10: 191.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 63, fig. 16.

Hamilton beds Hamburg-on-the-Lake N. Y.

C. Van Deloo, coll. 1864

Stictopora rectalinea Hall & Simpson

999 $\frac{6889}{1}$ TYPE *Stictopora rectalinea* Hall & Simpson. Paleontology of New York. 1887. 6: 245, pl. 63, fig. 23.

Hamilton beds West Williams Ont.

J. De Cew, coll. 1865

Stictopora recubans Hall & Simpson

1000 $\frac{6890}{1}$ TYPE: PLASTOTYPE *Stictopora recubans* Hall & Simpson. Paleontology of New York. 1887. 6: 260, pl. 63, fig. 20, 21.

Hamilton beds Shore of Seneca lake, N. Y.

Stictopora rhomboidea Hall

1001 $\frac{6891}{1}$ TYPE *Stictopora rhomboidea* Hall. Transactions of the Albany institute. 1881. 10: 15.

Hall. 5th annual report of the New York state geologist. 1886. pl. 29, fig. 27, 28.

Hall & Simpson. Paleontology of New York. 1883.
v. 6, pl. 29, fig. 27, 28.

Onondaga limestone

West of Leroy N. Y.

On slab with type of *Fenestella nexilis*, 7th an. rep't
N. Y. state geol., pl. 10, fig. 14, 15.

Stictopora rigida Hall

1002 $\frac{6892}{1}$ TYPE *Stictopora rigida* Hall. Transactions of the
Albany institute. 1881. 10:14 (abstract).

Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 25, fig. 15, 16.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 28, fig. 15, 16.

Onondaga limestone

Leroy N. Y.

C. A. White, coll. 1860

On slab with types of *Acanthoclema triseriale*, Pal.
N. Y. v. 6, pl. 28, fig. 6, 7 and *Stictopora semistriata*,
pl. 29, fig. 19-20.

Stictopora scutulata see *Ptilodictya scutulata*

Stictopora semistriata Hall

1003 $\frac{6893}{1}$ TYPE *Stictopora semistriata* Hall. Transactions
of the Albany institute. 1881. 10:14 (abstract).

Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 25, fig. 17, 20.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 28, fig. 17, 20.

Onondaga limestone

Leroy N. Y.

C. A. White, coll. 1860

On slab with type of *Stictopora rigida*, Pal. N. Y. v. 6,
pl. 28, fig. 15, 16.

1004 $\frac{6893}{2}$ TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 25, fig. 18.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 28, fig. 18.

Onondaga limestone

Leroy N. Y.

C. A. White, coll. 1860

On slab with type of *Stictopora rigida*, pl. 28,
fig. 15, 16.

Stictopora sinuosa Hall

- 1005 $\frac{6894}{1}$ TYPE *Stictopora sinuosa* Hall. Transactions of the Albany institute. 1881. 10:190.
 Hall & Simpson. Paleontology of New York 1887.
 v. 6, pl. 61, fig. 17.
 Hamilton beds Shore of Cayuga lake, south of Union Springs N. Y.

Stictopora striata Hall & Simpson

- 1006 $\frac{6895}{1}$ TYPE *Stictopora striata* Hall & Simpson. Paleontology of New York. 1887. 6:246, pl. 63, fig. 22.
 Hamilton beds Vincent, Ontario co. N. Y.

Stictopora subcarinata Hall

- 1007 $\frac{6896}{1}$ TYPE *Stictopora?* *subcarinata* Hall. Transactions of the Albany institute. 1881. 10:191.
Stictopora subcarinata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 1.
 Hamilton beds Bellona, Yates co. N. Y.
 J. W. Hall and C. Van Deloo, coll. 1866
- 1008 $\frac{6896}{2}$ HYPOTYPE *Stictopora dichotoma* Hall (by error). 3d annual report of the New York state geologist. 1884. p. 48.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 2-4.
 Hamilton beds Darien Center N. Y.
- 1009 $\frac{6896}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 5, 6.
 Hamilton beds Bellona, Yates co. N. Y.
 J. W. Hall and C. Van Deloo, coll. 1866

Stictopora subrigida Hall

- 1010 $\frac{6897}{1}$ TYPE *Stictopora subrigida* Hall. Transactions of the Albany institute. 1881. 10:190.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 21.
 Hamilton beds Near Alden N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1878

Stictopora trilineata Hall & Simpson

- 1011 $\frac{6899}{1}$ TYPE *Stictopora trilineata* Hall & Simpson.
Paleontology of New York. 1887. 6:243, pl. 61, fig. 26, 27.
Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

Stictopora triserialis see *Acanthoclema triserialis*

Stictopora tumulosa Hall & Simpson

- 1012 $\frac{6899}{1}$ TYPE *Stictopora tumulosa* Hall & Simpson.
Paleontology of New York. 1887. 6:246, pl. 61, fig. 18,
19.

Hamilton beds Moscow N. Y.

- 1013 $\frac{6899}{2}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 61, fig. 20, 21.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

- 1014 $\frac{6899}{3}$ TYPE: PLASTOTYPE Hall & Simpson. Paleontology of
New York. 1887. v. 6, pl. 61, fig. 22.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

Stomatopora ? *alternata* see *Hederella alternata*

SYNOCLADIA King**Synocladia** (? sp.)

- 1015 $\frac{6910}{1}$ HYPOTYPE Undetermined Hall. 2d annual report of the
New York state geologist. 1883. pl. 22, fig. 22.

Synocladia ? sp. Hall & Simpson. Paleontology
of New York. 1887. v. 6, pl. 22, fig. 22.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Rhombopora canaliculata*, Pal.
N. Y. v. 6, pl. 11, fig. 12.

TAENIOPORA Nicholson**Taeniopora exigua** Nicholson

- 1016 $\frac{6915}{1}$ HYPOTYPE *Taeniopora exigua* Nicholson. Paleon-
tology of Ontario. 1874. p. 108.

Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 62, fig. 15.

Hamilton beds Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1017 $\frac{6915}{2}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 62, fig. 16.
Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1018 $\frac{6915}{3}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 62, fig. 17.
Hamilton beds Fall brook, Gorham, Ontario co. N. Y.
- 1019 $\frac{6915}{4}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 62, fig. 18.
Hamilton beds Borodino, Onondaga co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1872
- 1020 $\frac{6915}{5}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 62, fig. 21.
Hamilton beds Near Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1021 $\frac{6915}{6}$ HYPOTYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 62, fig. 22, 24.
Hamilton beds Unadilla Forks, Otsego co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
- 1022 $\frac{6915}{7}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 23, 25.
Hamilton beds Unadilla Forks N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
Thallostigma confertipora *see* *Fistulipora confertipora*
Thallostigma decipiens *see* *Fistulipora decipiens*
Thallostigma densa *see* *Fistulipora densa*
Thallostigma digitata *see* *Fistulipora digitata*
Thallostigma inclusa *see* *Fistulipora inclusa*
Thallostigma lamellata *see* *Fistulipora lamellata*
Thallostigma longimacula *see* *Fistulipora longimacula*
Thallostigma micropora *see* *Fistulipora micropora*
Thallostigma multaculeata *see* *Fistulipora multaculeata*
Thallostigma plana *see* *Fistulipora plana*

Thallostigma scrobiculata *see* *Fistulipora scrobiculata*

Thallostigma segregata *see* *Fistulipora segregata*

Thallostigma serrulata *see* *Fistulipora serrulata*

Thallostigma sparsipora *see* *Prismopora sparsipora*

Thallostigma subtilis *see* *Fistulipora?* *subtilis*

Thallostigma umbilicata *see* *Fistulipora?* *umbilicata*

Thallostigma variapora *see* *Fistulipora variapora*

THAMNISCUS King

Thamniscus ? cisseis Hall

- 1023 $\frac{6920}{1}$ TYPE *Thamniscus ? cisseis* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 176.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 26, 28.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 26, 28.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

- 1024 $\frac{6920}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 25.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 25.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 1025 $\frac{6920}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 27.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 27.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of *Rhombopora rhombifera*, Pal. N. Y. v. 6, pl. 23, fig. 12.

Thamniscus fruticella Hall

- 1026 $\frac{6921}{1}$ TYPE *Thamniscus fruticella* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 516.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 33

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 33.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Thamniscus multiramus Hall

- 1027 $\frac{6922}{1}$ TYPE *Thamniscus multiramus* Hall. Transactions of the Albany institute. 1881. 10: 19 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 1.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 1.

Onondaga limestone Schoharie county, N. Y.

J. Gebhard purchase

- 1028 $\frac{6922}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 2, 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 2, 5.

Onondaga limestone Clarksville N. Y.

- 1029 $\frac{6922}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 3, 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 3, 4.

Onondaga limestone Schoharie N. Y.

Thamniscus ? nysa Hall.

- 1030 $\frac{6922}{1}$ TYPE *Thamniscus nysa* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 175.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 31, 32.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 31, 32.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Diamesopora constricta*, Pal. N. Y. v. 6, pl. 23A, fig. 7.

- 1031 $\frac{6923}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 47, 48.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 47, 48.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
- Thamniscus variolatus** Hall
- 1032 $\frac{6924}{1}$ TYPE *Thamniscus variolatus* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 175.
Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 34.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 34.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
- 1033 $\frac{6924}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 35.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 35.
New Scotland beds Near Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 1876
- 1034 $\frac{6924}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 36, 45.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 36, 45.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
- 1035 $\frac{6924}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 37.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 37.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
- 1036 $\frac{6924}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 40.
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 22, fig. 40.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

- 1037 $\frac{6924}{6}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 41.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 41.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 1038 $\frac{6924}{7}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 46.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 46.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Thamnopora divaricata see *Thamnotrypa divaricata*.

THAMNOTRYPA Hall

Thamnotrypa divaricata Hall

- 1039 $\frac{6930}{1}$ TYPE *Thamnopora divaricata* Hall. Transactions of the Albany institute. 1881. 10:16 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 9, 10.

Thamnotrypa divaricata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 9, 10.

Onondaga limestone Near Buffalo N. Y.

TREMATELLA Hall

Trematella glomerata Hall

- 1040 $\frac{6940}{1}$ TYPE *Trematella glomerata* Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 25, fig. 4, 5.

Trematopora (*Trematella*) *glomerata* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 25, fig. 4, 5.

Onondaga limestone Clarence, Erie co. N. Y.

C. A. White, coll. 1860

Trematopora (sp. undt.) see *Acanthoclema divergens*

Trematopora alternata see *Acanthoclema alternatum*

Trematopora (*Orthopora*) *bispinulata* see *Rhombopora bispinulata*

Trematopora canaliculata *see* *Rhombopora canaliculata*

Trematopora (*Orthopora*) *canaliculata* *see* *Rhombopora canaliculata*

Trematopora camerata *see* *Diamesopora camerata*

Trematopora carinata *see* *Rhombopora carinata*

Trematopora constricta *see* *Diamesopora constricta*

Trematopora corticosa *see* *Trematopora?* (*Trematella?*) *corticosa*

Trematopora (*Chaetetes*) *corticosa* *see* *Trematopora?* (*Trematella?*) *corticosa*

TREMATOPORA Hall

***Trematopora?* (*Trematella?*) *corticosa* Hall**

1041 $\frac{6950}{1}$ TYPE *Trematopora corticosa* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 105.

Trematopora (*Chaetetes*) *corticosa* Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 4.

Trematopora? (*Trematella?*) *corticosa* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 4.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Diamesopora constricta*, Pal. N. Y. v. 6, pl. 10, fig. 16.

1042 $\frac{6950}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 6.

New Scotland beds Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

1043 $\frac{6950}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 7.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 1044 $\frac{6950}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 8.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 8.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
- 1045 $\frac{6950}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 9.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 9.
New Scotland beds Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 1876
- 1046 $\frac{6950}{6}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 10.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 10.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
- 1047 $\frac{6950}{7}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 4.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 4.
New Scotland beds Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
- 1048 $\frac{6950}{8}$ TYPE Hall. Paleontology of New York. 1887. v. 6, pl. 23, fig. 20.
New Scotland beds Near Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 1876
Trematopora crassa see *Lichenalia crassa*
Trematopora densa see *Monotrypella densa*
Trematopora (Chaetetes) densa see *Monotrypella densa*
Trematopora (Orthopora) elongata see *Rhombopora elongata*
Trematopora (Trematella) glomerata see *Trematella glomerata*
Trematopora (Orthopora) granilinea see *Rhombopora granilinea*
Trematopora (Orthopora) hexagona see *Rhombopora hexagona*

Trematopora (Orthopora) immersa *see*
Rhombopora immersa

Trematopora (Callopora) irregularis *see*
Coelocaulis irregularis

Trematopora (Orthopora) lineata *see*
Rhombopora lineata

Trematopora maculosa see Lichenalia maculosa

Trematopora (Orthopora?) orbipora *see*
Trematopora orbipora

***Trematopora orbipora* Hall**

1049 $\frac{6951}{1}$ TYPE *Trematopora orbipora* Hall. Trans-
actions of the Albany institute. 1881. 10:181.

Trematopora (Orthopora?) orbipora
Hall & Simpson. Paleontology of New York. 1887.
v. 6, pl. 55, fig. 13, pl. 56, fig. 8.

Hamilton beds Fall brook, east of Canandaigua lake, N.Y.

On slab with type of *Bactropora curvata*, Pal.
N. Y. v. 6, pl. 66, fig. 14-16.

1050 $\frac{6951}{2}$ TYPE Hall & Simpson. Paleontology of New York.
1887. v. 6, pl. 55, fig. 14.

Hamilton beds Canandaigua lake, N. Y.

Trematopora (Orthopora) ornata *see*
Rhombopora ornata

Trematopora ostiolata see Chilotrypa ostio-
lata

Trematopora ovatipora see Rhombopora
ovatipora

Trematopora (Orthopora) ovatipora *see*
Rhombopora ovatipora

Trematopora parallela see Rhombopora
parallela

Trematopora (Orthopora) parallela *see*
Rhombopora parallela

Trematopora regularis see Rhombopora
regularis

Trematopora (Orthopora) regularis *see*
Rhombopora regularis

Trematopora (Orthopora) reticulata *see*
Rhombopora reticulata

Trematopora rhombifera *see* *Rhombopora rhombifera* and *Stictopora granatula*

Trematopora (*Orthopora*) *rhombifera* *see* *Rhombopora rhombifera*

Trematopora scutulata *see* *Acanthoclema scutulatum* and *Rhombopora scutulata*

Trematopora (*Orthopora*) *scutulata* *see* *Rhombopora scutulata*

Trematopora subquadrata *see* *Rhombopora subquadrata*

Trematopora (*Orthopora*) *subquadrata* *see* *Rhombopora subquadrata*

Trematopora (*Orthopora*) *tortalinea* *see* *Rhombopora tortalinea*

Trematopora transversa *see* *Rhombopora transversa*

Trematopora (*Orthopora*) *transversa* *see* *Trematopora transversa*

***Trematopora transversa* Hall**

1051 $\frac{6952}{1}$ TYPE *Trematopora transversa* Hall. Transactions of the Albany institute. 1881. 10:180.

Trematopora (*Orthopora*) *transversa* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 12.

Hamilton beds Hamburg-on-the-Lake N. Y.

1052 $\frac{6952}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 56, fig. 13, 14.

Hamilton shales Hamburg-on-the-Lake N. Y.

J. W. Hall and C. Van Deloo, coll. 1865

TROPIDOPORA Hall

***Tropidopora nana* Hall**

1053 $\frac{6960}{1}$ TYPE *Tropidopora nana* Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 25, fig. 25, 26.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 25, fig. 25, 26.

Onondaga limestone

Onondaga Valley N. Y.

C. A. White, coll. 1860

UNITRYPA Hall

Unitrypa lata Hall

- 1054 $\frac{6970}{1}$ TYPE *Fenestella* (*Hemitrypa*) *lata* Hall. Transactions of the Albany institute. 1881. 10:34 (abstract).
Fenestella (*Unitrypa*) *lata* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 52, fig. 5.
 Onondaga limestone Near Buffalo N. Y.
 C. A. White, coll. 1861

Unitrypa nervia Hall

- 1055 $\frac{6971}{1}$ TYPE *Fenestella nervia* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 93.
 Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 1-3.
Fenestella (*Unitrypa*) *nervia* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 1-3.
 New Scotland beds Near Clarksville N. Y.
 1056 $\frac{6971}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 6.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 6.
 New Scotland beds Near Clarksville N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1877
 On slab with type of *Polypora paxillata*, Pal. N. Y. v. 6, pl. 18, fig. 10, 11.
 1057 $\frac{6971}{3}$ HYPOTYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 9, 10.
 Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 9, 10.
 New Scotland beds Near Clarksville N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1877

Unitrypa nervia var. **constricta** Hall

- 1058 $\frac{6972}{1}$ TYPE *Fenestella* (*Hemitrypa*) *nervia* var. *constricta* Hall. 32d annual report of the New York state museum of natural history. 1879. p. 174.
 Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 11.

Fenestella (*Unitrypa*) *nervia* var. *constricta* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 11.

New Scotland beds

Near Clarksville N. Y.

1059 $\frac{6972}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 12.

New Scotland beds.

Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of *Polypora paxillata*, Pal. N. Y. v. 6, pl. 18, fig. 10, 11.

***Unitrypa praecursor* Hall**

1060 $\frac{6973}{1}$ TYPE *Fenestella praecursor* Hall. 26th annual report of the New York state museum of natural history. 1874. p. 94.

Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 15, 18.

Fenestella (*Unitrypa*) *praecursor* Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 15, 18.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of *Polypora obliqua*, Pal. N. Y. v. 6, pl. 18, fig. 8, 9.

1061 $\frac{6973}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 16.

New Scotland beds

Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

***Unitrypa scalaris* Hall**

1062 $\frac{6974}{1}$ TYPE *Fenestella scalaris* Hall. 36th annual report of the New York state museum of natural history. 1884. p. 66.

Fenestella (*Unitrypa*) *scalaris* Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 1.

Hamilton beds

Bellona N. Y.

- 1063 $\frac{6974}{2}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 2-4.
Hamilton beds Bellona N. Y.
- 1064 $\frac{6974}{3}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 6, 9.
Hamilton beds Thedford Ont.
J. De Cew, coll. 1865
- 1065 $\frac{6974}{4}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 7, 8.
Hamilton beds Bellona N. Y.
- 1066 $\frac{6974}{5}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 10.
Hamilton beds Bellona N. Y.
- 1067 $\frac{6974}{6}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 11.
Hamilton beds Bellona N. Y.
On slab with type of pl. 11, fig. 10.

BRACHIOPODA

ACROTHELE Linnarsson

Acrothele matthewi Hartt, *var. lata* Matthew

- 1068 $\frac{7000}{1}$ PLASTOTYPE *Acrothele matthewi* var. *lata* Matthew. Transactions of the Royal society of Canada. 1886. v. 3, pl. 5, fig. 17.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 27.
St John group Hanford Brook, N. B.

ACROTRETA Kutorga

Acrotreta baileyi Matthew

- 1069 $\frac{7020}{1}$ PLASTOTYPE *Acrotreta baileyi* Matthew. Transactions of the Royal society of Canada. 1886. v. 3, pl. 5, fig. 13c.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 32.
St John group Long Reach, Kings co. N. B.
- 1070 $\frac{7020}{2}$ PLASTOTYPE Matthew. Transactions of the Royal society of Canada. 1886. v. 3, pl. 5, fig. 13.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 33.
St John group Long Reach N. B.

- 1071 $\frac{7020}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 34.
 St John group Long Reach N. B.
Acrotreta ? gulielmi see *Discinopsis gulielmi*
Ambocoelia gregaria see *Ambocoelia umbonata*
var. gregaria

AMBOCOELIA Hall

Ambocoelia praeumbona Hall

- 1072 $\frac{7040}{1}$ TYPE *Orthis praeumbona* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 167.
Ambocoelia praeumbona Hall. Paleontology of New York. 1867. v. 4, pl. 44, fig. 1.
 Hamilton shales Canandaigua lake, N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1862
- 1073 $\frac{7040}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 44, fig. 2.
 Hamilton shales Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 1074 $\frac{7040}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 44, fig. 6.
 Hamilton shales Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860

Ambocoelia spinosa Clarke

- 1075 $\frac{7041}{1}$ TYPE *Ambocoelia spinosa* Clarke. 13th annual report of the New York state geologist. 1894. 1:177, pl. 4, fig. 6-8.
 Hamilton shales Livonia shaft, Livingston co. N. Y.

Ambocoelia umbonata var. gregaria Hall

- 1076 $\frac{7042}{1}$ TYPE *Ambocoelia gregaria* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 81.
Ambocoelia umbonata var. gregaria Hall. Paleontology of New York. 1867. v. 4, pl. 44, fig. 23.
 Chemung beds Randolph, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1863

AMPHIGENIA Hall

Amphigenia elongata Vanuxem (sp.)

- 1077 $\frac{7060}{1}$ HYPOTYPE *Pentamerus elongatus* Vanuxem.
Geology of New York; report on the 3d district. 1842.
p. 132.
Amphigenia elongata Hall. Paleontology of
New York. 1867. v. 4, pl. 58A, fig. 21.
Onondaga limestone Clarence, Erie co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1860
- 1078 $\frac{7060}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 58A, fig. 22.
Onondaga limestone Leroy N. Y.
- 1079 $\frac{7060}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 58A, fig. 23.
Onondaga limestone Clarence N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1860
- 1080 $\frac{7060}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 58A, fig. 24.
Onondaga limestone Williamsville, Erie co. N. Y.
- 1081 $\frac{7060}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 59, fig. 7.
Onondaga limestone Leroy N. Y.
- 1082 $\frac{7060}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 73, fig. 16.
Schoharie grit Schoharie N. Y.
- 1083 $\frac{7060}{7}$ HYPOTYPE *Amphigenia elongata* var. *undulata* Hall. Paleontology of New York. 1867. v. 4,
pl. 58A, fig. 26.
Amphigenia elongata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 73, fig. 20.
Onondaga limestone
From the drift of southern Michigan
C. Rominger, donor
- 1084 $\frac{7060}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 59, fig. 8.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 74, fig. 1.
Onondaga limestone Clarence N. Y.

- 1085 $\frac{7060}{9}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 59, fig. 2.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 74, fig. 4.
Onondaga limestone Williamsville, Erie co. N. Y.
- 1086 $\frac{7060}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 74, fig. 5.
Onondaga limestone Western New York
- 1087 $\frac{7060}{11}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 59, fig. 4-6.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 74, fig. 7, 9.
Onondaga limestone Williamsville N. Y.

Amphigenia elongata *var. undulata* Hall

- 1088 $\frac{7061}{1}$ TYPE *Amphigenia elongata* *var. undulata*
Hall. Paleontology of New York. 1867. v. 4, pl. 58A,
fig. 27.
Schoharie grit Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862
Amphigenia elongata *var. undulata* *see*
Amphigenia elongata

ANABAIA Clarke

Anabaia anticostiana Clarke

- 1089 $\frac{7070}{1}$ TYPE *Anabaia anticostiana* Clarke. Archivos
do Museu nacional do Rio de Janeiro. 1899. 10:15, pl. 1,
fig. 26-28.
Anticosti group Anticosti
J. M. Clarke, donor

ANASTROPHIA Hall

Anastrophia internascens Hall

- 1090 $\frac{7080}{1}$ HYPOTYPE *Anastrophia internascens* Hall.
28th annual report of the New York state museum of
natural history. 1879. p. 168.
Beecher & Clarke. New York state museum memoir 1.
1889. pl. 3, fig. 14, 14a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Anastrophia verneuili Hall

- 1091 $\frac{7081}{1}$ HYPOTYPE *Pentamerus verneuili* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 104.

Anastrophia verneuili Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 63, fig. 33, 34.

Helderbergian The Helderberg, N. Y.

Anomia reticularis see *Atrypa reticularis*

Anomites semireticulatus see *Productus semireticulatus*

ANOPLIA Hall & Clarke**Anoplia nucleata** Hall

- 1092 $\frac{7090}{1}$ HYPOTYPE *Leptaena nucleata* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 47.

Anoplia nucleata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15A, fig. 17.

Oriskanian Albany county, N. Y.

- 1093 $\frac{7090}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 20, fig. 15.

Oriskanian Jones county, Ill.

- 1094 $\frac{7090}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 14.

Oriskanian Becraft mountain, Hudson N. Y.

ATHYRIS McCoy**Athyris** (sp. ?)

- 1095 $\frac{7100}{1}$ HYPOTYPE *Athyris* (sp. ?) Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 97, fig. 72.

Carbonic limestone Cork? Ireland

Athyris angelica Hall

- 1096 $\frac{7101}{1}$ HYPOTYPE *Athyris angelica* Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 99.

Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 14.

Chemung beds Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

Athyris junia see *Hyattella junia*

Athyris lamellosa Lèveillé (sp.)

- 1097 $\frac{7102}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Spirifer lamellosus* Lèveillé. Mémoires de la Société géologique de France. 1835. 2:39.

Athyris lamellosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 46, fig. 19.

Keokuk group

Crawfordsville Ind.

C. Van Deloo, coll. 1867

Athyris polita Hall

- 1098 $\frac{7103}{1}$ TYPE *Atrypa polita* Hall. Geology of New York; report on the 4th district. 1843. Explanation of tab. 66.

Athyris? polita Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 31.

Chemung beds

Randolph N. Y.

C. Van Deloo, coll. 1863

- 1099 $\frac{7103}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 32.

Chemung beds

New Albion, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1100 $\frac{7103}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 33.

Chemung beds

Western New York

Athyris prinstana see *Hindella prinstana*

Athyris spiriferoides Eaton (sp.)

- 1101 $\frac{7104}{1}$ HYPOTYPE *Terebratula spiriferoides* Eaton. American journal of science. 1831. 21:137.

Athyris spiriferoides Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 5.

Hamilton shales

York, Livingston co. N. Y.

C. A. White, coll. 1860

- 1102 $\frac{7104}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 6, 7.

Hamilton shales

Eighteen Mile creek, Erie co. N. Y.

C. Van Deloo, coll. 1864

- 1103 $\frac{7104}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 11.

Hamilton shales

Eighteen Mile creek, N. Y.

C. A. White, coll. 1860

- 1104 $\frac{7104}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 46, fig. 13.
Hamilton shales Eighteen Mile creek, N. Y.
C. A. White, coll. 1860.
- 1105 $\frac{7104}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 46, fig. 25.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 45, fig. 11.
Hamilton shales Eighteen Mile creek, N. Y.
C. Van Deloo, coll. 1864
- 1106 $\frac{7104}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 45, fig. 13.
Hamilton shales Thunder bay, Mich.
- 1107 $\frac{7104}{7}$ HYPOTYPE Hall. 13th annual report of the New York
state cabinet of natural history. 1859. p. 93, fig. 3.
Hall. 15th annual report of the New York state cabinet
of natural history. 1862. p. 180, fig. 3.
Hall. Paleontology of New York. 1867. v. 4, pl. 46,
fig. 27.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 45, fig. 12.
Hamilton shales Darien Center N. Y.
C. A. White, coll. 1860
- 1108 $\frac{7104}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 89, fig. 60.
Hamilton shales Canandaigua N. Y.
Athyris subquadrata see *Seminula subquadrata*
Athyris umbonata see *Hindella umbonata*
- Athyris vittata* Hall**
- 1109 $\frac{7105}{1}$ HYPOTYPE *Athyris vittata* Hall. 13th annual report
of the New York state cabinet of natural history. 1859.
p. 89.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 45, fig. 4.
Onondaga limestone Falls of the Ohio, Ky.
- 1110 $\frac{7105}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 45, fig. 5.
Onondaga limestone Falls of the Ohio, Ky.
- 1111 $\frac{7105}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 89, fig. 62, 63.
Onondaga limestone Falls of the Ohio, Ky.

ATRYPA Dalman

- Atrypa acutiplicata* *see* *Coelospira acutiplicata*
Atrypa arata *see* *Pentamerella arata*
Atrypa camura *see* *Trematospira camura*
Atrypa concinna *see* *Nucleospira concinna*
Atrypa congesta *see* *Hyattella congesta*
Atrypa congregata *see* *Camarotoechia congregata*
Atrypa contracta *see* *Camarotoechia contracta*
Atrypa cuneata var. *americana* *see* *Rhynchotretra cuneata* var. *americana*
Atrypa disparilis *see* *Atrypina disparilis*
Atrypa extans *see* *Triplecia extans*
Atrypa flabellites *see* *Leptocoelia flabellites*
Atrypa galeata *see* *Sieberella galeata*
Atrypa globuliformis *see* *Liorhynchus globuliforme*
Atrypa hemiplicata *see* *Parastrophia hemiplicata*
Atrypa hemispherica *see* *Coelospira hemispherica*
Atrypa hirsuta *see* *Parazyga hirsuta*

Atrypa hystrix Hall

- III2 $\frac{7110}{1}$ HYPOPLASTOTYPE *Atrypa hystrix* Hall. Geology of New York; report on the 4th district. 1843. p. 272.
 Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 16.
 Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 23.
 Chemung beds Near Bath, Steuben co. N. Y.

Atrypa impressa Hall

- III3 $\frac{7111}{1}$ HYPOTYPE *Atrypa impressa* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 122.
 Hall. Paleontology of New York. 1867. v. 4, p. 51, fig. 7.
 Schoharie grit Schoharie N. Y.
 III4 $\frac{7111}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 51, fig. 9.
 Schoharie grit Knox, Albany co. N. Y.
 C. Van Deloo, coll. 1862
Atrypa intermedia *see* *Whitfieldella intermedia*
Atrypa lamellata *see* *Rhynchonella* (?) *lamellata*

Atrypa marginalis Dalman

- 1115 $\frac{7112}{1}$ HYPOTYPE *Terebratula marginalis* Dalman.
Kongl. Svenska Vet. Akad. Handl. för 1827. 1828,
p. 59.

Atrypa marginalis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 24, 25.
Middle Siluric Anticosti

Atrypa medialis *see* *Eatonina medialis*

Atrypa modesta *see* *Zygospira modesta*

Atrypa nasuta *see* *Meristella nasuta*

Atrypa naviformis *see* *Whitfieldella* (?) *naviformis*

Atrypa neglecta *see* *Camarotoechia* (?) *neglecta*

Atrypa nitida *see* *Whitfieldella nitida*

Atrypa nucleolata *see* *Whitfieldella* (?) *nucleolata*

Atrypa planoconvexa *see* *Coelospira planoconvexa*

Atrypa plicatula *see* *Coelospira plicatula*

Atrypa quadricostata *see* *Liorhynchus quadricostatum*

Atrypa reticularis Linné (sp.)

- 1116 $\frac{7113}{1}$ HYPOTYPE *Anomia reticularis* Linné. *Systema naturae*. 1867. ed. 12, pt 1, p. 1132.

Atrypa reticularis Hall. Paleontology of New York. 1867. v. 4, pl. 51, fig. 11.

Onondaga limestone

Cayuga Ont.

- 1117 $\frac{7113}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 51, fig. 12, 13.

Onondaga limestone

Cayuga Ont.

- 1118 $\frac{7113}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 53, fig. 3, 4.

Hamilton shales

York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1119 $\frac{7113}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 12, 12a, 15, 15a.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 1.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1120 $\frac{7113}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 53, fig. 11.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 55, fig. 7.
Hamilton shales Darien, Genesee co. N. Y.
C. A. White, coll. 1860
- 1121 $\frac{7113}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 55, fig. 13.
Onondaga limestone Falls of the Ohio, Ky.
- 1122 $\frac{7113}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 55, fig. 14.
Onondaga limestone Falls of the Ohio, Ky.
- 1123 $\frac{7113}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 55, fig. 17.
Hamilton beds Clarke county, Ind.
- 1124 $\frac{7113}{9}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 165, fig. 153.
Onondaga limestone Falls of the Ohio, Ky.
- 1125 $\frac{7113}{10}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 6, fig. 16, 16a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1126 $\frac{7113}{11}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 6, fig. 17, 17a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1127 $\frac{7113}{12}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 6, fig. 18, 18a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1128 $\frac{7113}{13}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 6, fig. 19, 19a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1129 $\frac{7113}{14}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 6, fig. 20, 20a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- Atrypa robusta* see *Rhynchonella robusta*
Atrypa rostrata see *Meristella rostrata*

Atrypa scitula *see* *Charionella scitula*

Atrypa semiplicata *see* *Rhynchonella semiplicata*

***Atrypa spinosa* Hall**

1130 $\frac{7114}{1}$ HYPOTYPE *Atrypa spinosa* Hall. Geology of New York; report on the 4th district. 1843. p. 200.

Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 1.

Onondaga limestone

Caledonia N. Y.

C. A. White, coll. 1860

1131 $\frac{7114}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 8.

Hamilton shales

York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

1132 $\frac{7114}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 13.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.

C. Van Deloo, coll. 1864

1133 $\frac{7114}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 22.

Hamilton beds

Canandaigua lake, N. Y.

J. M. Clarke purchase

Atrypa sulcata *see* *Whitfieldella sulcata*

Atrypa unguiformis *see* *Hipparionyx proximus*

Atrypa unisulcata *see* *Pentagonia unisulcata*

ATRYPINA Hall & Clarke

***Atrypina clintoni* Hall & Clarke**

1134 $\frac{7120}{1}$ TYPE *Atrypina clintoni* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 161, pl. 53, fig. 7.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 29.

Clinton beds

Drift of western New York

1135 $\frac{7120}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 17.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 28.

Clinton beds

Drift of western New York

- 1136 $\frac{7120}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 19.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 30.

Clinton beds

Drift of western New York

Atrypina disparilis Hall

- 1137 $\frac{7121}{1}$ HYPOTYPE *Atrypa disparilis* Hall. Paleontology of New York. 1852. 2:277.

Coelospira disparilis Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 17, 17a.

Atrypina disparilis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 4.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1138 $\frac{7121}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 18.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1139 $\frac{7121}{3}$ HYPOTYPE Beecher and Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 20.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1140 $\frac{7121}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 21.

Niagaran

Waldron Ind

C. D. Walcott and C. Van Deloo, coll. 1878

- 1141 $\frac{7121}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 22.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1142 $\frac{7121}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 23.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Atrypina imbricata Hall

- 1143 $\frac{7122}{1}$ HYPOTYPE *Leptocoelia imbricata* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 108.

Atrypina imbricata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 5.

Helderbergian

Clarksville N. Y.

- 1144 $\frac{7122}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 6.

Helderbergian

Clarksville N. Y.

- 1145 $\frac{7122}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 8.

Helderbergian

Clarksville N. Y.

BARRANDELLA Hall & Clarke

Barrandella areyi Hall & Clarke

- 1146 $\frac{7130}{1}$ TYPE Barrandella areyi Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 71, fig. 14-16.

Barrandella areyi Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 13, fig. 1-3.

Clinton beds

Rochester N. Y.

Barrandella fornicata Hall

- 1147 $\frac{7131}{1}$ TYPE Pentamerus fornicatus Hall. Paleontology of New York. 1852. 2:81, pl. 24, fig. 7a-7d.

Barrandella fornicata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 71, fig. 11-13.

Clinton beds

Lockport N. Y.

Jewett collection

Barrandella fornicata var. Hall

- 1148 $\frac{7132}{1}$ TYPE Pentamerus fornicatus var. Hall. 11th annual report of the Indiana state geologist. 1882. p. 299, pl. 27, fig. 15.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

BARROISELLA Hall & Clarke

Barroisella subspatulata Meek & Worthen (sp.)

- 1149 $\frac{7140}{1}$ HYPOPLASTOTYPE Lingula subspatulata Meek & Worthen. Geological survey of Illinois. 1868. 3:437.

Barroisella subspatulata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 14, 15.

Black slate (Genesee) White river, near Rockford Ind.

- 1150 $\frac{7140}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 16.

Black slate (Genesee) White river, near Rockford Ind.

BILLINGSSELLA Hall & Clarke

Billingsella (?) laurentina Billings (sp.)

- 1151 $\frac{7150}{1}$ HYPOTYPE *Orthis laurentina* Billings. Geological survey of Canada; report for 1856-1857, p. 297.

Billingsella (?) laurentina Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 3.

Anticosti group

Anticosti

- 1152 $\frac{7150}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 4.

Anticosti group

Anticosti

- 1153 $\frac{7150}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 5.

Anticosti group

Anticosti

Alpheus Hyatt, donor

- 1154 $\frac{7150}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 6.

Anticosti group

Anticosti

Alpheus Hyatt, donor

BRACHYPRION Shaler

Brachyprion majus Clarke

- 1155 $\frac{7170}{1}$ TYPE: PLASTOTYPE *Brachyprion majus* Clarke. New York state museum memoir 3. 1900. p. 54, pl. 8, fig. 8.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1156 $\frac{7170}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 9.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1157 $\frac{7170}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 10.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1158 $\frac{7170}{4}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 11.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1159 $\frac{7170}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 12.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1160 $\frac{7170}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 13.

Oriskanian

Becraft mountain, Hudson N. Y.

Brachyprion profundum Hall

- 1161 $\frac{7171}{1}$ HYPOTYPE *Leptaena profunda* Hall. Paleontology of New York. 1852. 2:61.

Strophodonta profunda Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 18.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Brachyprion schuchertanum Clarke

- 1162 $\frac{7172}{1}$ TYPE: PLASTOTYPE *Brachyprion schuchertanum* Clarke. New York state museum memoir 3. 1900. p. 56, pl. 8, fig. 1, 5.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1163 $\frac{7172}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 2.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1164 $\frac{7172}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 3.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1165 $\frac{7172}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 4.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1166 $\frac{7172}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 6.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1167 $\frac{7172}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 7.

Oriskanian

Becraft mountain, Hudson N. Y.

CAMARELLA Billings

Camarella calcifera *see* *Syntrophia* (?) *calcifera*

Camarella panderi Billings

- 1168 $\frac{7180}{1}$ HYPOTYPE *Camarella panderi* Billings. Canadian naturalist and geologist. 1859. 4:302.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 19, 20.

Black river limestone Pauquette's rapids, Ottawa river

W. R. Billings, donor

- 1169 $\frac{7180}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 21-23.

Black river limestone Pauquette's rapids, Ottawa river

W. R. Billings, donor

Camarella volborthi Billings

- 1170 $\frac{7181}{1}$ HYPOTYPE *Camarella volborthi* Billings. Canadian naturalist and geologist. 1859. 4:301.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 13, 16.

Black river limestone Pauquette's rapids, Ottawa river
W. R. Billings, donor

- 1171 $\frac{7181}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 18.

Black river limestone Pauquette's rapids, Ottawa river
Camarium typum see *Merista typus*

CAMAROPHORIA King

Camarophoria eucharis see *Camarospira eucharis*.

Camarophoria rhomboidalis Hall & Clarke

- 1172 $\frac{7190}{1}$ TYPE *Camarophoria rhomboidalis* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 212, pl. 62, fig. 25.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 37.

Onondaga limestone Peru Ind.

- 1173 $\frac{7190}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 26.

Onondaga limestone Peru Ind.

CAMAROSPIRA Hall & Clarke**Camarospira eucharis** Hall

- 1174 $\frac{7200}{1}$ TYPE *Camarophoria eucharis* Hall. Paleontology of New York. 1867. 4:368, pl. 57, fig. 40-44.

Camarospira eucharis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 49.

Onondaga limestone Cayuga Ont.
J. De Cew, coll.

- 1175 $\frac{7200}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 57, fig. 45.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 50.

Onondaga limestone Cayuga Ont.
J. De Cew, coll.

CAMAROTOECHIA Hall & Clarke

Camarotoechia ? acinus Hall

- 1176 $\frac{7210}{1}$ HYPOTYPE *Rhynchonella acinus* Hall. Transactions of the Albany institute. 1863. 4:215.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 9, 9a, 9b.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1177 $\frac{7210}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 10, 10a, 10b.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1178 $\frac{7210}{3}$ HYPOTYPE Grabau. New York state museum bulletin no. 49. 1901. p. 194, fig. 108.

Clinton limestone

Niagara gorge, N. Y.

A. W. Grabau, coll. 1900

Camarotoechia congregata Conrad (sp.)

- 1179 $\frac{7211}{1}$ HYPOTYPE *Atrypa congregata* Conrad. 5th annual report of the New York state geological survey. 1841. p. 55.

Rhynchonella (*Stenocisma*) *congregata* Hall. Paleontology of New York. 1867. v. 4, pl. 54, fig. 55.

Camarotoechia congregata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 23.

Hamilton beds

Otsego county, N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

- 1180 $\frac{7211}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54, fig. 57.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 25.

Hamilton beds

Madison county, N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Camarotoechia contracta Hall

- 1181 $\frac{7212}{1}$ HYPOTYPE *Atrypa contracta* Hall. Geology of New York; report on the 4th district. 1843. Expl. of tab. 66.

Rhynchonella (*Stenocisma*) *contracta* Hall. Paleontology of New York. 1867. 4:351, pl. 55, fig. 27.

Upper Chemung beds Bradford, McKean co. Pa.

R. P. Stevens, donor

On slab with type of *Leptodesma matheri* Hall. Pal.

N. Y. v. 5, pt 1, pl. 89, fig. 25.

1182 $\frac{7212}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.

v. 4, pl. 55, fig. 34, 35.

Hall & Clarke. Paleontology of New York. 1894.

v. 8, pt 2, pl. 57, fig. 30, 32.

Chemung beds Horse Corners, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

1183 $\frac{7212}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.

v. 4, pl. 55, fig. 38.

Hall & Clarke. Paleontology of New York. 1894.

v. 8, pt 2, pl. 57, fig. 49.

Hamilton beds Near Cardiff, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

***Camarotoechia* (sp.) cf. *dryope* Billings**

1184 $\frac{7213}{1}$ HYPOTYPE *Camarotoechia* (sp.) cf. *dryope*

Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 20, 21.

Oriskanian

Becraft mountain, Hudson N. Y.

***Camarotoechia* (?) *duplicata* Hall**

1185 $\frac{7214}{1}$ TYPE *Rhynchonella* (*Stenocisma*) *duplicata*

Hall. Paleontology of New York. 1867. 4:350, pl. 55, fig. 21.

Chemung beds

Conewango, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

1186 $\frac{7214}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York.

1867. v. 4, pl. 55, fig. 22, 24.

Hall & Clarke. Paleontology of New York. 1894.

v. 8, pt 2, pl. 57, fig. 39.

Chemung beds

New Albion, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

1187 $\frac{7214}{3}$ TYPE: PLASTOTYPE Hall. Paleontology of New York.

1867. v. 4, pl. 55, fig. 23, 25.

Chemung beds

New Albion N. Y.

C. Van Deloo, coll. 1863

Camarotoechia (?) indianensis Hall

- 1188 $\frac{7215}{1}$ HYPOTYPE *Rhynchonella indianensis* Hall.
Transactions of the Albany institute. 1863. 4:215.

Hall. 11th annual report of the Indiana state geologist.
1882. pl. 27, fig. 6.

Beecher & Clarke. New York state museum memoir 1.
1889. pl. 3, fig. 19.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1189 $\frac{7215}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana state
geologist. 1882. pl. 27, fig. 5.

Beecher & Clarke. New York state museum memoir 1.
1889. pl. 3, fig. 20.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1190 $\frac{7215}{3}$ HYPOTYPE Hall. 11th annual report of the Indiana state
geologist. 1882. pl. 27, fig. 4.

Beecher & Clarke. New York state museum memoir 1.
1889. pl. 3, fig. 21.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1191 $\frac{7215}{4}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 3, fig. 26, 26a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1192 $\frac{7215}{5}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 3, fig. 27, 27a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1193 $\frac{7215}{6}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 3, fig. 28, 28a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Camarotoechia (?) neglecta Hall

- 1194 $\frac{7216}{1}$ HYPOTYPE *Atrypa neglecta* Hall. Paleontology
of New York. 1852. 2:70.

Rhynchonella neglecta Hall. 11th annual
report of the Indiana state geologist. 1882. pl. 27, fig. 3.

Beecher & Clarke. New York state museum memoir
1. 1889. pl. 4, fig. 3.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1195 $\frac{7216}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 6, 6a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1196 $\frac{7216}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 7, 7a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Camarotoechia oblata Hall

- 1197 $\frac{7217}{1}$ HYPOTYPE Rhynchonella oblata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 86.
Camarotoechia oblata Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 22.
Oriskanian Becraft mountain, Hudson N. Y.

Camarotoechia orbicularis Hall

- 1198 $\frac{7218}{1}$ TYPE Rhynchonella orbicularis Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 88.
Rhynchonella (Stenocisma) orbicularis Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 40.
Camarotoechia orbicularis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 46.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1199 $\frac{7218}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 41.
Chemung beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 1200 $\frac{7218}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 46.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 50.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

Camarotoechia stevensi Hall

- 1201 $\frac{7219}{1}$ TYPE *Rhynchonella* (*Stenocisma*) *stephani* Hall. Paleontology of New York. 1867. 4:349, pl. 55, fig. 11, 12.

Chemung beds

Bedford Pa.

R. P. Stevens, coll.

- 1202 $\frac{7219}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 13-15.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 34, 35.

Chemung beds

Bedford Pa.

R. P. Stevens, coll.

Camarotoechia tethys Billings (sp.)

- 1203 $\frac{7220}{1}$ HYPOTYPE *Rhynchonella* ? *tethys* Billings. Canadian journal. 1860. 5:270.

Rhynchonella (*Stenocisma*) *tethys* Hall. Paleontology of New York. 1867. v. 4, pl. 54, fig. 4-8.

Camarotoechia tethys Hall and Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 1, 2.

Onondaga limestone

Erie co. N. Y.

C. Van Deloo, coll. 1864

Camarotoechia whitii Hall

- 1204 $\frac{7221}{1}$ HYPOTYPE *Rhynchonella whitii* Hall. Transactions of the Albany institute. 1863. 4:216.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 1, 1a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1205 $\frac{7221}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 4, 4a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1206 $\frac{7221}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 5, 5a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

CENTRONELLA Billings

Centronella glans-fagea Hall

- 1207 $\frac{7230}{1}$ HYPOTYPE *Rhynchonella glans-fagea* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 125.

Centronella glans-fagea Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 3-5.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 2-4.

Schoharie grit

Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 1208 $\frac{7230}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 17.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 7.

Schoharie grit

Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

- 1209 $\frac{7230}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 18.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 13.

Schoharie grit

Clarksville N. Y.

C. Van Deloo, coll. 1862

- 1210 $\frac{7230}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 21.

Onondaga limestone

Cayuga Ont.

Centronella hecate Billings

- 1211 $\frac{7231}{1}$ HYPOTYPE *Centronella hecate* Billings. Canadian journal. 1861. 6:272.

Centronella hecate Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 27-29.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 15.

Onondaga limestone

Cayuga Ont.

J. De Cew, coll. 1866

Centronella impressa Hall

- 1212 $\frac{7232}{1}$ HYPOTYPE *Centronella impressa* Hall. 14th annual report of the New York state cabinet of natural history. 1867. p. 102.

Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 30-32.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

Centronella julia see Romingerina julia

Centronella ovata Hall

1213 $\frac{7233}{1}$ TYPE *Centronella ovata* Hall. Paleontology of New York. 1867. 4:419, pl. 61A, fig. 47-49.

Onondaga limestone Cayuga Ont.

J. De Cew, coll. 1866

CHARIONELLA Billings

Charionella scitula Hall

1214 $\frac{7240}{1}$ HYPOTYPE *Atrypa scitula* Hall. Geology of New York; report on the 4th district. 1843. p. 171.

Charionella scitula Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 19.

Onondaga limestone Cayuga Ont.

1215 $\frac{7240}{2}$ HYPOTYPE *Meristella scitula* Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 34, 35.

Onondaga limestone Clarence, Erie co. N. Y.

CHONETES Fischer de Waldheim

Chonetes carinatus Conrad (sp.)

1216 $\frac{7250}{1}$ HYPOTYPE *Strophomena carinata* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:257.

Chonetes coronata Hall. Paleontology of New York. 1867. v. 4, pl. 21, fig. 10e, 10f.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 11.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 11.

Hamilton beds Genesee county, N. Y.

C. Van Deloo, coll. 1864

1217 $\frac{7250}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 21, fig. 10g.

Hall 2d annual report of the New York state geologist. 1883. pl. 47, fig. 10.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 16, fig. 10.

Hamilton beds Alexander, Genesee co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

1218 $\frac{7250}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 21, fig. 101.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 24.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 16, fig. 24.

Hamilton beds York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Chonetes complanata see *Chonostrophia complanata*

Chonetes coronata see *Chonetes carinatus*

***Chonetes hudsonicus* Clarke**

1219 $\frac{7251}{1}$ TYPE *Chonetes hudsonica* Clarke. New York state museum memoir 3. 1900. p. 49, pl. 7, fig. 1.

Oriskanian Becraft mountain, Hudson N. Y.

1220 $\frac{7251}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 2.

Oriskanian Becraft mountain, Hudson N. Y.

1221 $\frac{7251}{3}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 7, fig. 3.

Oriskanian Becraft mountain, Hudson N. Y.

1222 $\frac{7251}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 4.

Oriskanian Becraft mountain, Hudson N. Y.

1223 $\frac{7251}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 5, 6.

Oriskanian Becraft mountain, Hudson N. Y.

***Chonetes illinoisensis* Worthen**

1224 $\frac{7252}{1}$ HYPOTYPE *Chonetes illinoisensis* Worthen.
Transactions of the St Louis academy of sciences. 1860.
1:571.

Chonetes illinoisensis Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 15.

Waverly group Weymouth, Medina co. O.

C. A. White, coll. 1861

Chonetes lepidus Hall

- 1225 $\frac{7253}{1}$ TYPE *Chonetes lepidus* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 148.

Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 12.

Genesee slate

Crooked creek, Darien N. Y.

C. Van Deloo, coll. 1864

Chonetes logani Norwood & Pratten *var. aurora* Hall

- 1226 $\frac{7254}{1}$ TYPE *Chonetes logani* var. *aurora* Hall. Paleontology of New York. 1867. 4:137, pl. 22, fig. 19.

Waverly group

Bridgeport, Wayne co. O.

C. A. White, coll. 1861

- 1227 $\frac{7254}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 20.

Waverly group

Bridgeport O.

C. A. White, coll. 1861

- 1228 $\frac{7254}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 21.

Waverly group

York Center, Medina co. O.

C. A. White, coll. 1861

- 1229 $\frac{7254}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 22.

Waverly group

Chatham Center, Medina co. O.

C. A. White, coll. 1861

Chonetes mucronatus Hall

- 1230 $\frac{7255}{1}$ HYPOTYPE *Strophomena mucronata* Hall. Geology of New York; report on the 4th district. 1843. p. 181.

Chonetes mucronata Hall. Paleontology of New York. 1867. v. 4, pl. 21, fig. 1d, 1e.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 7.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 7.

Marcellus shales

West Avon N. Y.

C. A. White and C. Van Deloo, coll.

Chonetes muricata *see* *Strophalosia muricata*

Chonetes reversa *see* *Chonostrophia reversa*

Chonetes scitulus Hall

- 1231 $\frac{7256}{1}$ TYPE *Chonetes scitula* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 147.

Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 6.

Chemung beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo coll. 1863

- 1232 $\frac{7256}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 7.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 3.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 3.

Chemung beds Conewango N. Y.
C. Van Deloo, coll. 1863

- 1233 $\frac{7256}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 10.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 44.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 44.

Chemung beds Allegany county, N. Y.
C. Van Deloo, coll. 1863

CHONOSTROPHIA Hall & Clarke**Chonostrophia complanata** Hall

- 1234 $\frac{7270}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Chonetes complanata* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 56.

Chonostrophia complanata Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 7.

Oriskanian Becraft mountain, Hudson N. Y.

- 1235 $\frac{7270}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 8.

Oriskanian Becraft mountain, Hudson N. Y.

- 1236 $\frac{7270}{3}$ HYPOTYPE: HYPOPLASTOTYPE New York state museum memoir 3. 1900. pl. 7, fig. 9.

Oriskanian Becraft mountain, Hudson N. Y.

- 1237 $\frac{7270}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl 7, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.
- 1238 $\frac{7270}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.
- 1239 $\frac{7270}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.
- 1240 $\frac{7270}{7}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 13.
Oriskanian Becraft mountain, Hudson N. Y.

Chonostrophia reversa Whitfield (sp.)

- 1241 $\frac{7271}{1}$ HYPOTYPE: HYPOPLASTOTYPE Chonetes reversa Whitfield. Annals of the New York academy of science. 1882. 2: 213.

Chonostrophia reversa Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 5.

Onondaga limestone Union Springs, Cayuga co. N. Y.
D. F. Lincoln, coll.

CLINTONELLA Hall & Clarke

Clintonella vagabunda Hall & Clarke

- 1242 $\frac{7280}{1}$ TYPE Clintonella vagabunda Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 159, pl. 52, fig. 1.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 17.

Clinton beds Drift of western New York

- 1243 $\frac{7280}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 2-4.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 18-20.

Clinton beds Drift of Western New York

- 1244 $\frac{7280}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 5.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 21.

Clinton beds Drift of western New York

- 1245 $\frac{1280}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 52, fig. 6.
Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 9, fig. 22.
Clinton beds Drift of western New York
- 1246 $\frac{1280}{6}$ TYPE Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 52, fig. 7.
Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 9, fig. 26 [28].
Clinton beds Drift of western New York
- 1247 $\frac{1280}{6}$ TYPE Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 52, fig. 8.
Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 9, fig. 23.
Clinton beds Drift of western New York
- 1248 $\frac{1280}{7}$ TYPE Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 52, fig. 9.
Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 9, fig. 24.
Clinton beds Drift of western New York
- 1249 $\frac{1280}{8}$ TYPE Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 52, fig. 10.
Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 9, fig. 25.
Clinton beds Drift of western New York
- 1250 $\frac{1280}{9}$ TYPE Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 52, fig. 11.
Clinton beds Drift of western New York

COELOSPIRA Hall

Coelospira acutiplicata Conrad (sp.)

- 1251 $\frac{1290}{1}$ HYPOTYPE *Atrypa acutiplicata* Conrad. 5th an-
nual report of the New York geological survey. 1841.
p. 54.
Coelospira acutiplicata Hall & Clarke.
Paleontology of New York. 1894. v. 8, pt 2, pl. 53,
fig. 36.
Onondaga limestone Waterloo N. Y.
- 1252 $\frac{1290}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 53, fig. 37, 38.
Onondaga limestone Waterloo N. Y.

Coelospira camilla Hall

- 1253 $\frac{7291}{1}$ HYPOTYPE *Coelospira concava* Hall. Paleontology of New York. 1867. 4:329.
Coelospira camilla Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 29.
 Onondaga limestone Leroy N. Y.
- 1254 $\frac{7291}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 30.
 Onondaga limestone Leroy N. Y.
- 1255 $\frac{7291}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 31.
 Onondaga limestone Leroy N. Y.

Coelospira concava Hall

- 1256 $\frac{7292}{1}$ HYPOTYPE *Leptocoelia concava* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 107.
 Hall. Paleontology of New York. 1859. v. 3. pl. 38, fig. 1b.
 Helderbergian Albany county, N. Y.
- 1257 $\frac{7292}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 22.
 Helderbergian Near Clarksville N. Y.
- 1258 $\frac{7292}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 23.
 Helderbergian Near Clarksville N. Y.
- 1259 $\frac{7292}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 135, fig. 122.
 Helderbergian Near Clarksville N. Y.
- 1260 $\frac{7292}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 135, fig. 123.
 Helderbergian Near Clarksville N. Y.
- 1261 $\frac{7292}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 23.
 Oriskanian Becraft mountain, Hudson N. Y.
- 1262 $\frac{7292}{7}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 24.
 Oriskanian Becraft mountain, Hudson N. Y.
- 1263 $\frac{7292}{8}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 25.
 Oriskanian Becraft mountain, Hudson N. Y.

- 1264 $\frac{7292}{9}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 26.

Oriskanian

Becraft mountain, Hudson N. Y.

Coelospira concava see *Coelospira camilla*

***Coelospira dichotoma* Hall**

- 1265 $\frac{7293}{1}$ HYPOTYPE *Leptocoelia dichotoma* Hall. Paleontology of New York. 1859. 3:452.

Coelospira dichotoma Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 27, 28.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1266 $\frac{7293}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 29.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1267 $\frac{7293}{3}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 30.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1268 $\frac{7293}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 31, 32.

Oriskanian

Becraft mountain, Hudson N. Y.

Coelospira disparilis see *Atrypina disparilis*

***Coelospira hemisphaerica* Sowerby (sp.)**

- 1269 $\frac{7294}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Atrypa hemisphaerica* Sowerby. Murchison's Silurian system. 1839. p. 639.

Coelospira hemisphaerica Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 1.

Clinton beds

Western New York

- 1270 $\frac{7294}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 2.

Clinton beds

Western New York

- 1271 $\frac{7294}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 3.

Clinton beds

Western New York

- 1272 $\frac{7294}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 4.

Clinton beds

Western New York

Coelospira planoconvexa Hall

1273 $\frac{7295}{1}$ HYPOTYPE *Atrypa planoconvexa* Hall. Paleontology of New York. 1852. 2:75.

Coelospira planoconvexa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 15.

Clinton beds

Hamilton Ont.

Coelospira plicatula Hall

1274 $\frac{7296}{1}$ HYPOTYPE *Atrypa plicatula* Hall. Geology of New York; report on the 4th district. 1843. p. 72.

Coelospira plicatula Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 5.

Clinton beds

Wayne county, N. Y.

CONCHIDIUM Linné**Conchidium multicostatum** Hall

1275 $\frac{7300}{1}$ TYPE *Pentamerus multicostatus* Hall. Geological survey of Wisconsin; report of progress. 1860. p. 1.

Hall. 20th annual report of the New York state cabinet of natural history. 1867. pl. 13, fig. 22-24.

Conchidium multicostatum Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 64, fig. 6; pl. 66, fig. 10.

Niagaran

Waukesha Wis.

Conchita rhomboidalis *see* *Leptaena rhomboidalis*

CRANAENA Hall & Clarke**Cranaena romingeri** Hall

1276 $\frac{7310}{1}$ TYPE *Terebratula romingeri* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 48.

Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 17-19.

Hamilton beds

Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

1277 $\frac{7310}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 21.

Cranaena romingeri Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 80, fig. 13-15.

Hamilton beds

Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

CRANIA Retzius

Crania cf. bella Billings

- 1278 $\frac{7320}{1}$ TYPE: PLASTOTYPE *Crania cf. bella* Clarke. New York state museum memoir 3. 1900. p. 58, pl. 8, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.
- 1279 $\frac{7320}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 20.
Oriskanian Becraft mountain, Hudson N. Y.

Crania crenistriata Hall

- 1280 $\frac{7321}{1}$ TYPE *Crania crenistriata* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 78.
Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 14.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4H, fig. 9.
Hamilton shales Canandaigua lake, N. Y.
- 1281 $\frac{7321}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4H, fig. 6, 8.
Onondaga limestone Falls of the Ohio, Ky.
- 1282 $\frac{7321}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4H, fig. 7.
Onondaga limestone Canandaigua N. Y.
J. M. Clarke purchase

Crania famelica Hall & Whitfield

- 1283 $\frac{7322}{1}$ TYPE *Crania famelica* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 236, pl. 11, fig. 6.
Hamilton horizon Rockford Ia.

Crania gregaria Hall

- 1284 $\frac{7323}{1}$ TYPE *Crania gregaria* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 31.
Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 24.
Hamilton shales Vincent, Ontario co. N. Y.

Crania pulchella Hall & Clarke

- 1285 $\frac{7324}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Crania pulchella* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 180.

Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 16.

Oriskanian Becraft mountain, Hudson N. Y.

- 1286 $\frac{7324}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 17.

Oriskanian Becraft mountain, Hudson N. Y.

- 1287 $\frac{7324}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 18.

Oriskanian Becraft mountain, Hudson N. Y.

Crania radicans see *Strophalosia radicans*

CRANIELLA Oehlert**Craniella hamiltoniae** Hall

- 1288 $\frac{7320}{1}$ HYPOTYPE *Crania hamiltoniae* Hall. 13th annual report of the New York state cabinet of natural history. 1859. p. 77.

Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 17, 18.

Hamilton shales Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1289 $\frac{7320}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 21.

Hamilton beds Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1290 $\frac{7320}{3}$ HYPOTYPE *Craniella hamiltoniae* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4I, fig. 4. Onondaga limestone Falls of the Ohio, Ky.

- 1291 $\frac{7320}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4I, fig. 9.

Hamilton shales Canandaigua lake, N. Y.

J. M. Clarke purchase

- 1292 $\frac{7320}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4I, fig. 12.

Hamilton shales

Pratts falls, N. Y.

- 1293 $\frac{7330}{6}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 14.
Hamilton shales Canandaigua lake, N. Y.

J. M. Clarke purchase

CRYPTONELLA Hall

Cryptonella eudora Hall

- 1294 $\frac{7340}{1}$ **TYPE** *Cryptonella* (*Terebratula*) *eudora* Hall. Paleontology of New York. 1867. 4:398, pl. 61, fig. 32.

Chemung beds

Near Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 1295 $\frac{7340}{2}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 36.

Chemung beds

Near Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 1296 $\frac{7340}{3}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 37.

Chemung beds

Near Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 1297 $\frac{7340}{4}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 39.

Chemung beds

Near Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Cryptonella (*Terebratula*) *eudora* *see*
Cryptonella eudora

Cryptonella (?) fausta Clarke

- 1298 $\frac{7341}{1}$ **TYPE** *Cryptonella* (?) *fausta* Clarke. New York state museum memoir 3. 1900. p. 38, pl. 5, fig. 1-3.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1299 $\frac{7341}{2}$ **TYPE** Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 4-6.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1300 $\frac{7341}{3}$ **TYPE** Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 7, 8.

Oriskanian

Becraft mountain, Hudson N. Y.

Cryptonella planirostris Hall

- 1301 $\frac{7342}{1}$ **TYPE** *Terebratula planirostra* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 89.

Cryptonella planirostra Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 9-11.

Hamilton beds York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

1302 $\frac{7342}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 23, 24.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 80, fig. 8, 9.

Hamilton beds Hardy county, Va.

G. A. Williams, donor

1303 $\frac{7342}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 26, 27.

Hamilton beds Western New York

***Cryptonella rectirostris* Hall**

1304 $\frac{7343}{1}$ TYPE *Terebratula rectirostra* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 88.

Cryptonella rectirostra Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 1.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.

C. Van Deloo, coll. 1864

CYCLORHINA Hall & Clarke

***Cyclorhina nobilis* Hall**

1305 $\frac{7350}{1}$ TYPE *Rhynchospira nobilis* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 83.

Trematospira? nobilis Hall. Paleontology of New York. 1867. v. 4, pl. 63, fig. 36.

Cyclorhina nobilis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 61, fig. 11.

Hamilton shales Darien, Genesee co. N. Y.

CYCLOSPIRA Hall & Clarke

***Cyclospira bisulcata* Emmons (sp.)**

1306 $\frac{7360}{1}$ HYPOTYPE *Orthis bisulcata* Emmons. Geology of New York; report on the 2d district. 1842. p. 396.

Cyclospira bisulcata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 148, fig. 135, 136.

Trenton limestone

Ottawa Can.

CYRTIA Dalman

Cyrtia alta Hall

- 1307 $\frac{7370}{1}$ TYPE *Spirifera alta* Hall. Proceedings of the American philosophical society. 1866. 10: 246.
Hall. Paleontology of New York. 1867. v. 4, pl. 43 fig. 1.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1308 $\frac{7370}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 2.
Cyrtia alta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 26, fig. 1.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1309 $\frac{7370}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 3.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 26, fig. 5.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1310 $\frac{7370}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 4, 5, 7.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 26, fig. 2, 4.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1311 $\frac{7370}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 6.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1312 $\frac{7370}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 8.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 26, fig. 3.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1313 $\frac{7370}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 37.
Waverly beds Beebe run, Union City Pa.
F. A. Randall, coll.
Cyrtia acutirostris see *Cyrtina acutirostris*
Cyrtia biplicata see *Cyrtina biplicata*

Cyrtia cyrtiniformis Hall & Whitfield

- 1314 $\frac{7371}{1}$ TYPE *Spirifera cyrtinaeformis* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 238, pl. 11, fig. 21-24.

Cyrtia cyrtiniformis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 26-28.

Hamilton horizon

Rockford Ia.

R. P. Whitfield, coll. 1866

- 1315 $\frac{7371}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 29.

Hamilton horizon

Rockford Ia.

R. P. Whitfield, coll. 1866

- 1316 $\frac{7371}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 30.

Hamilton horizon

Rockford Ia.

R. P. Whitfield, coll. 1866

- 1317 $\frac{7371}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 32.

Hamilton horizon Hackberry Grove near Rockford Ia.

R. P. Whitfield, coll. 1866

Cyrtia triquetra *see* *Cyrtina triquetra*

CYRTINA Davidson

Cyrtina acutirostris Shumard (sp.)

- 1318 $\frac{7380}{1}$ HYPOTYPE *Cyrtia acutirostris* Shumard. Geological report of Missouri. 1855. p. 204

Cyrtina acutirostris Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 38.

Choteau limestone

Pike county, Mo.

- 1319 $\frac{7380}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 39-42.

Choteau limestone

Pike county, Mo.

- 1320 $\frac{7380}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 44.

Choteau limestone

Pike county, Mo.

- 1321 $\frac{7380}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 54.

Choteau limestone

Pike county, Mo.

Cyrtina biplicata Hall

- 1322 $\frac{7381}{1}$ TYPE *Cyrtia biplicata* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 165.

Cyrtina biplicata Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 8.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 7.

Onondaga limestone

Drift at Ann Arbor Mich.

C. Rominger, donor

Cyrtina crassa Hall

- 1323 $\frac{7382}{1}$ HYPOTYPE *Cyrtina crassa* Hall. Paleontology of New York. 1867. 4:267.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 14.

Onondaga limestone Drift on Canandaigua lake, N. Y.

J. M. Clarke purchase

Cyrtina hamiltonensis Hall

- 1324 $\frac{7383}{1}$ TYPE *Cyrtia hamiltonensis* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 166.

Cyrtina hamiltonensis Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 1.

Schoharie grit

Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 1325 $\frac{7383}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 2.

Schoharie grit

Knoxville N. Y.

C. Van Deloo, coll. 1862

- 1326 $\frac{7383}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 44, fig. 32.

Hamilton beds

York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1327 $\frac{7383}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 30.

Hamilton beds

Western New York

- 1328 $\frac{7383}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 46.

Hamilton beds

Thedford Ont.

- 1329 $\frac{7383}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 28, fig. 53.
Hamilton beds Thedford Ont.

Cyrtina triquetra Hall

- 1330 $\frac{7384}{1}$ HYPOTYPE *Cyrtia triquetra* Hall. Geological survey
of Iowa. 1858. v. 1, pt 2, p. 513.
Cyrtina triquetra Hall & Clarke. Paleontology
of New York. 1894. v. 8, pt 2, pl. 28, fig. 34, 35.
Hamilton beds Davenport Ia.

Cyrtina umbonata Hall *var. alpenensis* Hall & Clarke

- 1331 $\frac{7385}{1}$ TYPE *Cyrtina umbonata* Hall *var. alpenensis*
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, p. 362, pl. 28, fig. 18.
Hamilton beds Alpena Mich.
- 1332 $\frac{7385}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 28, fig. 19.
Hamilton beds Alpena Mich.
- 1333 $\frac{7385}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1894
v. 8, pt 2, pl. 28, fig. 20.
Hamilton beds Alpena Mich.

Cyrtina varia Clarke

- 1334 $\frac{7386}{1}$ TYPE: PLASTOTYPE *Cyrtina varia* Clarke. New York
state museum memoir 3. 1900. p. 49, pl. 6, fig. 15.
Oriskanian Becraft mountain, Hudson N. Y.
- 1335 $\frac{7386}{2}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 6, fig. 16-18.
Oriskanian Becraft mountain, Hudson N. Y.
- 1336 $\frac{7386}{3}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 6, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.
- 1337 $\frac{7386}{4}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 6, fig. 20, 21.
Oriskanian Becraft mountain, Hudson N. Y.
- 1338 $\frac{7386}{5}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 6, fig. 22.
Oriskanian Becraft mountain, Hudson N. Y.

DALMANELLA Hall & Clarke

Dalmanella elegantula Dalman (sp.)

- 1339 $\frac{7390}{1}$ HYPOTYPE *Orthis elegantula* Dalman. Kongl. Svenska Vet. Akad. Handl. för 1827. 1828. p. 117.
Orthis elegantula Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 3, 3a.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1340 $\frac{7390}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 4.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1341 $\frac{7390}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 5.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1342 $\frac{7390}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 6, 6a.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1343 $\frac{7390}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 7, 7a.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1344 $\frac{7390}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 8, 8a.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1345 $\frac{7390}{7}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 9, 9a.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1346 $\frac{7390}{8}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 10, 10a.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878
- 1347 $\frac{7390}{9}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 8 (series of 27 growth stages).
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878

Dalmanella lenticularis Vanuxem (sp.)

- 1348 $\frac{7391}{1}$ HYPOTYPE *Orthis lenticularis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 140.
Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 1a-1e.

Dalmanella lenticularis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5C, fig. 36, 37.

Onondaga limestone

Leroy N. Y.

C. A. White, coll. 1860

- 1349 $\frac{7391}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 2a-2d.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5C, fig. 38-40.

Onondaga limestone

Caledonia N. Y.

Dalmanella leonensis Hall

- 1350 $\frac{7392}{1}$ TYPE *Orthis leonensis* Hall. Paleontology of New York. 1867. 4:62, pl. 8, fig. 1.

Chemung beds

Cattaraugus county, N. Y.

C. Van Deloo, coll. 1865.

- 1351 $\frac{7392}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 8, fig. 3.

Chemung beds

Cold Spring, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1352 $\frac{7392}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 8, fig. 4.

Chemung beds Between Napoli and Conewango N. Y.

C. Van Deloo, coll. 1863

- 1353 $\frac{7392}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 8, fig. 5.

Chemung beds

Leon, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1354 $\frac{7392}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 8, fig. 6.

Chemung beds East Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1355 $\frac{7392}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 8, fig. 7.

Chemung beds

Cattaraugus county, N. Y.

C. Van Deloo, coll. 1863

- 1356 $\frac{7392}{7}$ **HYPOTYPE** *Dalmanella leonensis* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5C, fig. 42.

Chemung beds

Cattaraugus county, N. Y.

C. Van Deloo, coll. 1863

On slab with type of v. 4, pl. 8, fig. 1.

***Dalmanella* (?) *plicifera* Hall**

- 1357 $\frac{7393}{1}$ **TYPE** *Leptaena plicifera* Hall. Paleontology of New York. 1847. 1: 19, pl. 4 bis, fig. 1a.

Chazy limestone

Chazy N. Y.

- 1358 $\frac{7393}{2}$ **TYPE** Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 1b.

Chazy limestone

Chazy N. Y.

On slab with type of pl. 4 bis, fig. 1a.

***Dalmanella quadrans* Hall**

- 1359 $\frac{7394}{1}$ **TYPE** *Orthis quadrans* Hall. Paleontology of New York. 1861. v. 3 (corrigenda in volume with plates), pl. 12, fig. 9a-9c.

Helderbergian

Albany county, N. Y.

***Dalmanella stonensis* Safford**

- 1360 $\frac{7395}{1}$ **TYPE** *Orthis stonensis* Safford. Geology of Tennessee. 1869. p. 286.

Dalmanella stonensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5C, fig. 4, 5.

Trenton horizon

Near Nashville Tenn.

James M. Safford, donor

Delthyris acuminata *see* *Spirifer acuminatus*

Delthyris arenosa *see* *Spirifer arenosus*

Delthyris audaculus *see* *Spirifer audaculus*

Delthyris duodenarius *see* *Spirifer duodenarius*

Delthyris fimbriatus *see* *Spirifer fimbriatus*

Delthyris granulosa *see* *Spirifer granulatus*

Delthyris laevis *see* *Spirifer laevis*

Delthyris macronota *see* *Spirifer macronotus*

Delthyris macropleura *see* *Spirifer macropleura*

Delthyris mesacostalis *see* *Spirifer mesacostalis*

Delthyris mucronata *see* *Spirifer mucronatus*

Delthyris raricosta *see* *Spirifer raricosta*

Delthyris sculptilis *see* *Spirifer sculptilis*

DERBYA Waagen

Derbya keokuk Hall

- 1361 $\frac{7400}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Orthis keokuk* Hall.
 Geological survey of Iowa. 1858. v. 1, pt 2, p. 640.
Derbya keokuk Hall & Clarke. Paleontology of
 New York. 1892. v. 8, pt 1, pl. 1, fig. 1, 2.
 Knobstone (Keokuk) group New Providence Ind.

DIGNOMIA Hall

Dignomia alveata Hall

- 1362 $\frac{7410}{1}$ TYPE *Lingula alveata* Hall. 16th annual report of
 the New York state cabinet of natural history. 1863. p. 23.
 Hall. Paleontology of New York. 1867. v. 4, pl. 2,
 fig. 14.
Dignomia alveata Hall. Notes on some new or
 imperfectly known forms among the Brachiopoda. 1872.
 pl. 13, fig. 3.
 Hall. 23d annual report of the New York state
 cabinet of natural history. 1873. pl. 13, fig. 3.
 Hall & Clarke. Paleontology of New York. 1892.
 v. 8, pt 1, pl. 1, fig. 24.
 Hamilton shales Fultonham N. Y.

W. M. Gabb, coll. 1857

- 1363 $\frac{7410}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
 1892. v. 8, pt 1, pl. 1, fig. 25.
 Hamilton shales Canandaigua lake, N. Y.
 J. M. Clarke purchase

- 1364 $\frac{7410}{3}$ HYPOTYPE Clarke. 13th annual report of the New York
 state geologist. 1894. v. 1, pl. 4, fig 1.
 Upper Hamilton shales Livonia salt shaft, Livonia N. Y.
 D. D. Luther, coll. 1891

DINOBOULUS Hall

Dinobolus conradi Hall

- 1365 $\frac{7420}{1}$ HYPOPLASTOTYPE *Obolus conradi* Hall. 20th an-
 nual report of the New York state cabinet of natural
 history. 1867. p. 368.
Dinobolus conradi Hall & Clarke. Paleontology
 of New York. 1892. v. 8, pt 1, pl. 4B, fig. 14.
 Niagaran Near Le Claire Ia.

- 1366 $\frac{7420}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 16.
Niagaran Near Le Claire Ia.
- 1367 $\frac{7420}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 17.
Niagaran Near Le Claire Ia.
- 1368 $\frac{7420}{4}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 20.
Niagaran Near Le Claire Ia.
- 1369 $\frac{7420}{5}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 21.
Niagaran Near Le Claire Ia.
- Discina* sp. ? *see* *Orbiculoidea media var.*
Discina alleghania *see* *Orbiculoidea alleghania*
Discina doria *see* *Orbiculoidea doria*
Discina grandis *see* *Roemerella grandis*
Discina lodensis *see* *Orbiculoidea lodensis*
Discina manhattanensis *see* *Orbiculoidea manhattanensis*
Discina marginalis *see* *Orbiculoidea marginalis*
Discina media *see* *Orbiculoidea media*
Discina neglecta *see* *Orbiculoidea neglecta*
Discina newberryi *see* *Orbiculoidea newberryi*
Discina randalli *see* *Orbiculoidea randalli*
Discina tullia *see* *Orbiculoidea tullia*

DISCINOPSIS Matthew

Discinopsis gulielmi Matthew

- 1370 $\frac{7430}{1}$ HYPOPLASTOTYPE *Acrotreta?* *gulielmi* Matthew. Transactions of the Royal society of Canada. 1886. 3: 37.
Discinopsis gulielmi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 22.
 St John group Portland N. B.

DOUVILLINA Oehlert

Douvillina cayuta Hall

- 371 $\frac{7440}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Strophodonta cayuta* Hall. Paleontology of New York. 1867. 4: 110.
Douvillina cayuta Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 7.
 Chemung beds Lawrenceville, Tioga co. Pa.
 A. Sherwood, coll. 1871

- 1372 $\frac{7440}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 8.
Chemung group Lawrenceville, Tioga co. Pa.
A. Sherwood, coll. 1871

Douvillina inaequiradiata Hall (sp.)

- 1373 $\frac{7450}{1}$ **HYPOTYPE** Strophomena (Strophodonta) inaequiradiata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 113.
Strophodonta inaequiradiata Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 24, 25.
Schoharie grit Schoharie N. Y.
- 1374 $\frac{7450}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 29.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1375 $\frac{7450}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 30.
Schoharie grit Schoharie N. Y.

Douvillina inaequistriata Conrad (sp.)

- 1376 $\frac{7451}{1}$ **HYPOTYPE** Strophomena inaequistriata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:254.
Strophodonta inaequistriata Hall. Paleontology of New York. 1867. v. 4, pl. 12, fig. 8.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860
- 1377 $\frac{7451}{1}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 2a, 2d.
Hamilton shales York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1378 $\frac{7451}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 2c, 2f.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1379 $\frac{7451}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 2i.
Hamilton shales Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 1380 $\frac{7451}{5}$ HYPOTYPE *Douvillina inequistriata* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 9.

Hamilton shales

Canandaigua lake, N. Y.

EATONIA Hall

Eatonia medialis Vanuxem (sp.)

- 1381 $\frac{7460}{1}$ HYPOTYPE *Atrypa medialis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 120.

Eatonia medialis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 61, fig. 32.

Helderbergian

Albany county, N. Y.

Eatonia sinuata Hall

- 1382 $\frac{7461}{1}$ HYPOTYPE *Eatonia sinuata* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 91.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 61, fig. 37.

Helderbergian

Cumberland Md.

EICHWALDIA Billings

Eichwaldia reticulata Hall

- 1383 $\frac{7470}{1}$ HYPOTYPE *Rhynchonella?* *reticulata* Hall. Transactions of the Albany institute. 1863. 4: 217.

Eichwaldia reticulata Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 11.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 83, fig. 9.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1384 $\frac{7470}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 308, fig. 231.

Niagaran

Waldron Ind.

ELKANIA Ford

Elkania desiderata Billings (sp.)

- 1385 $\frac{7480}{1}$ HYPOPLASTOTYPE *Obolella desiderata* Billings. Paleozoic fossils. 1865. 1: 69.

Elkania desiderata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 15.

Upper Cambric

Point Levis, Quebec

- 1386** $\frac{7490}{2}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 18.
Upper Cambrian Point Levis, Quebec

ENTELES Fischer de Waldheim (emend.)

Enteles hemiplicatus Hall

- 1387** $\frac{7490}{1}$ **HYPOTYPE** Spirifer hemiplicatus Hall. Stansbury's expedition to the Great Salt lake. 1852. p. 409.
Entelestes hemiplicata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 49, 50.
Upper Coal measures Winterset Ia.

- 1388** $\frac{7490}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 51, 52.
Upper Coal measures Winterset Ia.

EUMETRIA Hall

Eumetria vera var. *costata* Hall

- 1389** $\frac{7500}{1}$ **HYPOTYPE** Retzia vera var. costata Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 704.
Eumetria vera var. costata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 27.

Chester limestone Crittenden county, Ky.

- 1390** $\frac{7500}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 33.

Chester limestone Crittenden county, Ky.

Eumetria verneuilliana Hall

- 1391** $\frac{7501}{1}$ **HYPOTYPE** Retzia verneuilliana Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 657.

Eumetria verneuilliana Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 19.

St Louis beds Spergen hill, Washington co. Ind.

- 1392** $\frac{7501}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 21.

St Louis beds Spergen hill, Washington co. Ind.

EUNELLA Hall & Clarke

Eunella sullivanti Hall

- 1393** $\frac{7510}{1}$ **TYPE** Terebratulula sullivanti Hall. Paleontology of New York. 1867. 4: 387, pl. 60, fig. 5-7.

Eunella sullivanti Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 80, fig. 24-26.

Onondaga limestone

Columbus O.

R. P. Whitfield, coll. 1865

- 1394 $\frac{7510}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 8.

Onondaga limestone

Cayuga Ont.

J. De Cew, coll. 1866

- 1395 $\frac{7510}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 9, 10.

Onondaga limestone

Cayuga Ont.

J. De Cew, coll. 1866

GLOSSINA Phillips

Glossina acuminata Conrad (sp.)

- 1396 $\frac{7520}{1}$ HYPOTYPE *Lingula acuminata* Conrad. 3d annual report of the New York geological survey. 1839. p. 64.

Glossina acuminata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 1.

Potsdam beds

Saratoga N. Y.

C. D. Walcott, coll. 1878

- 1397 $\frac{7520}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 2.

Potsdam beds

Saratoga N. Y.

C. D. Walcott, coll. 1878

Glossina riciniformis Hall

- 1398 $\frac{7521}{1}$ HYPOTYPE *Lingula riciniformis* Hall. Paleontology of New York. 1847. 1:95.

Glossina riciniformis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 3.

Trenton limestone

Middleville N. Y.

Hemipronites apicalis see *Polytoechia apicalis*

HINDELLA Davidson

Hindella prinstana Billings (sp.)

- 1399 $\frac{7530}{1}$ HYPOTYPE *Athyris prinstana* Billings. Paleozoic fossils. 1862. 1:145.

Hindella prinstana Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 1.

Anticosti group

Junction cliff, Anticosti

Alpheus Hyatt, donor

Hindella umbonata Billings (sp.)

1400 $\frac{7531}{1}$ HYPOTYPE *Athyris umbonata* Billings. Paleozoic fossils. 1862. 1:144.

Hindella umbonata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 64, fig. 51.

Anticosti group

Junction cliff, Anticosti

Alpheus Hyatt, donor

HIPPARIONYX Vanuxem**Hipparionyx proximus** Vanuxem

1401 $\frac{7540}{1}$ TYPE *Hipparionyx proximus* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 124, fig. 4.

Atrypa unguiformis (Conrad) Hall. Geology of New York; report on the 4th district. 1843. p. 149, fig. 4.

Oriskanian

Albany county, N. Y.

Albany institute, donor

HOMOEOSPIRA Hall & Clarke**Homoeospira evax** Hall

1402 $\frac{7550}{1}$ HYPOTYPE *Rhynchospira evax* Hall. Transactions of the Albany institute. 1863. 4:213.

Homoeospira evax Hall and Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 20.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1403 $\frac{7550}{2}$ HYPOTYPE *Retzia evax* Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 3, 3a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1404 $\frac{7550}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 5.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1405 $\frac{7550}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 6.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 18.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1406 $\frac{7550}{5}$ **HYPOTYPE** Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 7.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 19.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1407 $\frac{7550}{6}$ **HYPOTYPE** Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 8.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1408 $\frac{7550}{7}$ **HYPOTYPE** Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 9.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1409 $\frac{7550}{8}$ **HYPOTYPE** Beecher & Clarke. New York state museum memoir 1. 1889. pl. 8 (series of 27 growth stages).
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Homoeospira (cf.) evax Hall

- 1410 $\frac{7551}{1}$ **HYPOTYPE** Homoeospira (cf.) evax Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 33.
Upper Siluric Perry county, Tenn.
- 1411 $\frac{7551}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 34, 35.
Upper Siluric Perry county, Tenn.

Homoeospira sobrina Beecher & Clarke (sp.)

- 1412 $\frac{7552}{1}$ **TYPE** Retzia sobrina Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 10, 10a, 13, 13a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1413 $\frac{7552}{2}$ **TYPE** Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 11-11b.
Homoeospira sobrina Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 26-28.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

- 1414 $\frac{7552}{3}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 12.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1415 $\frac{7552}{4}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 14, 14a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1416 $\frac{7552}{5}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 15, 15a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1417 $\frac{7552}{6}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 16, 16a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

HUSTEDIA Hall & Clarke

Hustedia mormoni Marcou (sp.)

- 1418 $\frac{7560}{1}$ HYPOTYPE Terebratula mormoni Marcou. Geology of North America. 1858. p. 51.
Hustedia mormoni Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 121, fig. 106.
Coal measures Manhattan Kan.

HYATTELLA Hall & Clarke

Hyattella congesta Conrad (sp.)

- 1419 $\frac{7570}{1}$ HYPOTYPE Atrypa congesta Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 265.
Hyattella congesta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 26.
Clinton beds Reynale's Basin N. Y.
- 1420 $\frac{7570}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 27, 28.
Clinton beds Lockport N. Y.

Hyattella junia Billings (sp.)

- 1421 $\frac{7571}{1}$ HYPOTYPE Athyris junia Billings. Catalogue Silurian fossils Anticosti. 1886. p. 46.
Hyattella junia Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 29-31.
Anticosti group Cape East, Anticosti

HYPOTHYRIS King

Hypothyris venustula Hall

- 1422 $\frac{75.80}{1}$ TYPE *Rhynchonella venustula* Hall. Paleontology of New York. 1867. 4:346, pl. 54A, fig. 30-32.
Tully limestone Tully N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863
- 1423 $\frac{75.80}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54A, fig. 33.
Tully limestone Ovid, Seneca co. N. Y.
- 1424 $\frac{75.80}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54A, fig. 34-39.
Hypothyris venustula Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 55.
Tully limestone Ovid N. Y.
- 1425 $\frac{75.80}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54A, fig. 42.
Tully limestone Tinker's falls, Onondaga co. N. Y.
- 1426 $\frac{75.80}{5}$ HYPOTYPE Prosser. 15th annual report of the New York state geologist. 1897. 1:184, fig. 1.
Tully limestone horizon New Lisbon [Noblesville] N. Y.
C. S. Prosser, coll. 1895
- 1427 $\frac{75.80}{6}$ HYPOTYPE Prosser. 15th annual report of the New York state geologist. 1897. 1:184, fig. 2.
Tully limestone horizon New Lisbon [Noblesville] N. Y.
C. S. Prosser, coll. 1895
- 1428 $\frac{75.80}{7}$ HYPOTYPE Prosser. 15th annual report of the New York state geologist. 1897. 1:184, fig. 3-5.
Tully limestone New Lisbon [Noblesville] N. Y.
C. S. Prosser, coll. 1895

IPHIDEA Billings

Iphidea cf. ornatella Linnarsson

- 1429 $\frac{75.90}{1}$ HYPOTYPE *Iphidea cf. ornatella* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 6, 7.
Tonto group (Cambrian) Grand canyon, Ari.

KUTORGINA Billings

Kutorgina cingulata Billings

- 1430 $\frac{7600}{1}$ HYPOTYPE *Kutorgina cingulata* Billings. Geology of Vermont. 1861. 2:948.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 12.

Georgian

Swanton Vt.

S. W. Ford collection

- 1431 $\frac{7600}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 13, 14.

Georgian

Swanton Vt.

S. W. Ford collection

- 1432 $\frac{7600}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 15.

Georgian

Swanton Vt.

S. W. Ford collection

- 1433 $\frac{7600}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 17.

Georgian

Swanton Vt.

S. W. Ford collection

Kutorgina latourensis Matthew

- 1434 $\frac{7601}{1}$ HYPOPLASTOTYPE *Kutorgina latourensis* Matthew. Transactions of the Royal society of Canada. 1886. 3:42.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 18-20.

St John group

Portland N. B.

LEPTAENA Dalman

Leptaena alternata see *Rafinesquina alternata*

Leptaena bipartita see *Strophomena* (?) *bipartita*

Leptaena fasciata see *Rafinesquina fasciata*

Leptaena incrassata see *Rafinesquina incrassata*

Leptaena nucleata see *Anoplia nucleata*

Leptaena plicifera see *Dalmanella* (?) *plicifera*

Leptaena profunda see *Brachyprion profundum*

Leptaena punctulifera see *Strophonella punctulifera*

Leptaena rhomboidalis Wilckens (sp.)

- 1435 $\frac{7610}{1}$ HYPOTYPE *Conchita rhomboidalis* Wilckens. Nachricht von seltenen Versteinerungen. 1769. p. 77.

Strophomena rhomboidalis Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 15.

Hall. 2d annual report of the New York state geologist. 1883. pl. 38, fig. 30.

Leptaena rhomboidalis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 8, fig. 30.

Waverly group Mallet's creek, Medina co. O.

C. A. White, coll. 1861

1436 $\frac{7610}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 16.

Hall. 2d annual report of the New York state geologist. 1883. pl. 38, fig. 31.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 8, fig. 31.

Waverly group York Center, Medina co. O.

C. A. White, coll. 1861

1437 $\frac{7610}{3}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 20, fig. 23.

Niagaran Waldron Ind.

Leptaena (Strophomena) spiriferoides
see *Triplecia spiriferoides*

Leptaena subplana see *Orthothetes subplana*

LEPTAENISCA Beecher

Leptaenisca adnascens Hall & Clarke

1438 $\frac{7620}{1}$ **TYPE** *Leptaenisca adnascens* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 352, pl. 15A, fig. 22.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 6, fig. 26.

New Scotland beds Near Clarksville N. Y.

J. M. Clarke collection

LEPTOBOLUS Hall

Leptobolus insignis Hall

1439 $\frac{7630}{1}$ **HYPOTYPE** *Leptobolus insignis* Hall. Description of new species of fossils from the Hudson river group. 1871. p. 3.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 1.

Utica slate Holland Patent N. Y.

C. Haskell purchase

- I440** $\frac{7630}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1892. v. 8, pt 1, pl: 3, fig. 2.

Utica slate Cold Spring, east of Little Falls N. Y.
C. Van Deloo, coll. 1880

Leptobolus walcotti Ruedemann

- I441** $\frac{7631}{1}$ **TYPE** Leptobolus walcotti Ruedemann. New
York state museum bulletin 42. 1901. p. 569, pl. 1, fig. 6.
Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

- I442** $\frac{7631}{2}$ **TYPE** Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 7.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

- I443** $\frac{7631}{3}$ **TYPE** Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 8.

Trenton (Normanskill) shale

Mount Moreno, Hudson N.Y.

R. Ruedemann and M. Sheehy, coll. 1899

- I444** $\frac{7631}{4}$ **TYPE** Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 9.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

- I445** $\frac{7631}{5}$ **TYPE** Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 10.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

On slab with *Schizotreta papilliformis*, N. Y. state
mus. bul. 42, pl. 1, fig. 5.

- I446** $\frac{7631}{6}$ **TYPE** Ruedemann. New York state museum bulletin
42. 1901. pl. 1, fig. 11.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

- I447** $\frac{7631}{7}$ **TYPE** Ruedemann. New York state museum bulletin
42. 1901. pl. 1, fig. 12.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

LEPTOCOELIA Hall*Leptocoelia concava* *see* *Coelospira concava**Leptocoelia dichotoma* *see* *Coelospira dichotoma***Leptocoelia fimbriata Hall**

- 1448 $\frac{7640}{1}$ HYPOTYPE *Leptocoelia fimbriata* Hall. 12th annual report of the New York state cabinet of natural history. 1859. p. 33.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 47.

Oriskanian

Cumberland Md.

- 1449 $\frac{7640}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 48.

Oriskanian

Cumberland Md.

- 1450 $\frac{7640}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 49, 51.

Oriskanian

Cumberland Md.

- 1451 $\frac{7640}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 55.

Oriskanian

Cumberland Md.

Leptocoelia flabellites Conrad (sp.)

- 1452 $\frac{7641}{1}$ HYPOTYPE *Atrypa flabellites* Conrad. 5th annual report of the New York geological survey. 1841. p. 55.

Leptocoelia flabellites Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 40-42.

Oriskanian

Cumberland Md.

- 1453 $\frac{7641}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 45.

Oriskanian

Cumberland Md.

- 1454 $\frac{7641}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 46.

Oriskanian

Cumberland Md.

- 1455 $\frac{7641}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 33, 34.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1456 $\frac{7641}{5}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 35, 36.

Oriskanian

Becraft mountain, Hudson N. Y.

Leptocoelia imbricata *see* *Atrypina imbricata*

LEPTOSTROPHIA Hall & Clarke

Leptostrophia junia Hall

- 1457 $\frac{7650}{1}$ HYPOTYPE *Strophomena textilis* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 141.

Strophodonta junia Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 9.

Hamilton shales Ogdens ferry, Cayuga lake, N. Y.
C. A. White, coll. 1860

- 1458 $\frac{7650}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 17.

Hall. 2d annual report of the New York state geologist. 1883. pl. 46, fig. 16.

Leptostrophia junia Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15, fig. 16.

Hamilton shales West Bloomfield N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1459 $\frac{7650}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 3c.

Hamilton shales West Bloomfield N. Y.

- 1460 $\frac{7650}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 3d.

Hamilton shales York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Leptostrophia perplana Conrad (sp.)

- 1461 $\frac{7651}{1}$ HYPOTYPE *Strophomena perplana* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:257.

Strophodonta perplana Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 22.

Schoharie grit Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 1462 $\frac{7651}{2}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 7, 8.

Hamilton beds Madison county, N. Y.

- 1463 $\frac{7651}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 17, fig. 1c, 1e.

Leptostrophia perplana Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15, fig. 11.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1464 $\frac{7651}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 17, fig. 1k.

Hall. 2d annual report of the New York state geologist. 1883. pl. 46, fig. 9.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 15, fig. 9.

Hamilton shales Canandaigua lake, N. Y.

- 1465 $\frac{7651}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 17, fig. 1l.

Hall. 2d annual report of the New York state geologist. 1883. pl. 46, fig. 10.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 15, fig. 10.

Hamilton shales York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

On slab with *Stropheodonta demissa*, Pal. N.Y. v.4,
pl. 17, fig. 2a.

- 1466 $\frac{7651}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 19, fig. 17.

Chemung beds Nichols, Tioga co. N. Y.

***Leptostrophia perplana* var. *nervosa* Hall**

- 1467 $\frac{7652}{1}$ **HYPOTYPE** *Strophomena nervosa* Hall. Geology
of New York; report on the 4th district. 1843. p. 266.

Strophodonta perplana var. *nervosa* Hall.
Paleontology of New York. 1867. v. 4. pl. 19, fig. 13.

Ithaca beds Homer, Cortland co. N. Y.

***Leptostrophia lincklaeni* Hall**

- 1468 $\frac{7653}{1}$ **HYPOTYPE** *Strophodonta lincklaeni* Hall. 10th
annual report of the New York state cabinet of natural
history. 1857. p. 55.

Leptostrophia lincklaeni Clarke. New York
state museum memoir 3. 1900. pl. 7, fig. 37.

Oriskanian Becraft mountain, Hudson N. Y.

***Leptostrophia magnifica* Hall**

- 1469 $\frac{7654}{1}$ **TYPE** *Strophodonta magnifica* Hall. 10th
annual report of the New York state cabinet of natural
history. 1857. p. 54.

Hall. Paleontology of New York. 1859. v. 3,
pl. 94, fig. 2a.

Oriskanian Albany county, N. Y.

- 1470 $\frac{7654}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3,
pl. 94, fig. 2b.
Oriskanian Schoharie county, N. Y.
- 1471 $\frac{7654}{3}$ TYPE Hall. Paleontology of New York. 1859. v. 3,
pl. 95, fig. 8.
Oriskanian Schoharie county, N. Y.
- Leptostrophia cf. magnifica** Clarke
- 1472 $\frac{7655}{1}$ HYPOTYPE: HYPOPLASTOTYPE New York state museum
memoir 3. 1900. pl. 7, fig. 36.
Oriskanian Becraft mountain, Hudson N. Y.
- Leptostrophia magniventra** Hall
- 1473 $\frac{7656}{1}$ TYPE: PLASTOTYPE Strophodonta magniventra
Hall. 10th annual report of the New York state cabinet
of natural history. 1857. p. 54.
Hall. Paleontology of New York. 1859. v. 3,
pl. 95, fig. 9.
Oriskanian The Helderberg, Albany co. N. Y.
- Leptostrophia mucronata** Conrad (sp.)
- 1474 $\frac{7657}{1}$ HYPOTYPE Strophomena mucronata Conrad.
Journal of the Academy of natural sciences of Phila-
delphia. 1842. 8:257.
Leptostrophia mucronata Clarke. 15th an-
nual report of the New York state geologist. 1898. 1:38,
fig. 3.
Ithaca beds Spafford N. Y.
D. D. Luther, coll. 1895
- Leptostrophia oriskania** Clarke
- 1475 $\frac{7658}{1}$ TYPE Leptostrophia oriskania Clarke. New
York state museum memoir 3. 1900. p. 53, pl. 7,
fig. 28, 34.
Oriskanian Becraft mountain, Hudson N. Y.
- 1476 $\frac{7658}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum
memoir 3. 1900. pl. 7, fig. 28, 34.
Oriskanian Becraft mountain, Hudson N. Y.
- 1477 $\frac{7658}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum
memoir 3. 1900. pl. 7, fig. 30.
Oriskanian Becraft mountain, Hudson N. Y.
- 1478 $\frac{7658}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum
memoir 3. 1900. pl. 7, fig. 31.
Oriskanian Becraft mountain, Hudson N. Y.

- 1479 $\frac{7658}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 32.
Oriskanian Becraft mountain, Hudson N. Y.
- 1480 $\frac{7658}{6}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 33.
Oriskanian Becraft mountain, Hudson N. Y.
- 1481 $\frac{7658}{7}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 35.
Oriskanian Becraft mountain, Hudson N. Y.

LINDSTROEMELLA Hall & Clarke

Lindstroemella aspidium Hall & Clarke

- 1482 $\frac{7670}{1}$ TYPE: PLASTOTYPE Lindstroemella aspidium Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 178, pl. 4E, fig. 25, 26.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 1, 2.
Hamilton beds Near Hamilton N. Y.
- 1483 $\frac{7670}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 27.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 3.
Hamilton beds Near Leonardsville N. Y.

LINGULA Bruguière

Lingula acuminata *see* Glossina acuminataLingula alveata *see* Dignomia alveataLingula antiqua *see* Lingulepis antiqua**Lingula compta** Hall & Clarke

- 1484 $\frac{7680}{1}$ TYPE Lingula compta Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 171, pl. 1, fig. 16.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 1.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

Lingula cuneata Conrad

- 1485 $\frac{7681}{1}$ HYPOTYPE Lingula cuneata Conrad. 2d annual report of the paleontological department of the survey of New York. 1839. p. 64.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 11.
Medina sandstone Albion N. Y.

- 1486 $\frac{7681}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 12.
Medina sandstone Albion N. Y.
On slab with type of pl. 1, fig. 11.
- 1487 $\frac{7681}{3}$ **PLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4K, fig. 9.
Medina sandstone Medina N. Y.

Lingula delia Hall

- 1488 $\frac{7682}{1}$ **TYPE** *Lingula delia* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 22.
Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 9.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 29.
Hamilton shales Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Lingula cf. densa Hall

- 1489 $\frac{7683}{1}$ **HYPOTYPE** *Lingula densa* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 22.
Lingula cf. densa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 23.
Hamilton shales Centerfield N. Y.
J. M. Clarke purchase
Lingula exilis see *Oehlertella exilis*

Lingula lamellata Hall

- 1490 $\frac{7684}{1}$ **HYPOTYPE** *Lingula lamellata* Hall. Geology of New York; report on the 4th district. 1843. p. 109.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 9, 10.
Rochester shales Lockport N. Y.
Lingula norwoodi see *Lingulops norwoodi*

Lingula nuda Hall

- 1491 $\frac{7685}{1}$ **TYPE** *Lingula nuda* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 22.
Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 4.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
Lingula palaeformis see *Lingulella? paliformis*
Lingula pinnaformis see *Lingulepis pinniformis*
Lingula pinniformis see *Lingulepis pinniformis*
Lingula? polita see *Obolella? polita*

Lingula procteri Ulrich

- 1492 $\frac{7686}{1}$ HYPOTYPE *Lingula procteri* Ulrich. American geologist. 1889. 3:377.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 1, fig. 7.
Cincinnatian Cincinnati O.

Lingula punctata Hall

- 1493 $\frac{7687}{1}$ TYPE *Lingula punctata* Hall. 16th annual report of the New York state cabinet of natural history. 1863.
p. 21.
Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6a.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1494 $\frac{7687}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6b.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1495 $\frac{7687}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6c.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1496 $\frac{7687}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6f.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1497 $\frac{7687}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 26.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1498 $\frac{7687}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 27.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1499 $\frac{7687}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 28.
Hamilton shales Canandaigua lake, N. Y.
J. M. Clarke purchase
Lingula riciniformis see *Glossina riciniformis*

Lingula scutella Hall & Clarke

- 1500 $\frac{7688}{1}$ TYPE *Lingula scutella* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 171, pl. 1, fig. 30.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 3.

Chemung beds

Allegany county, N. Y.

Lingula spatulata Vanuxem

- 1501 $\frac{7689}{1}$ HYPOTYPE *Lingula spatulata* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 168.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 15.

Genesee slate

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Lingula subspatulata see *Barroisella subspatulata*

Lingula sp? cf. cuyahoga Hall

- 1502 $\frac{7690}{1}$ HYPOTYPE *Lingula* sp.? cf. *cuyahoga* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 18.

Chemung (?) beds

Panama N. Y.

C. Van Deloo, coll. 1870

Lingula triquetra Clarke

- 1503 $\frac{7691}{1}$ TYPE *Lingula triquetra* Clarke. United States geological survey bulletin 16. 1885. p. 62, pl. 3, fig. 11.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke, donor

Lingula waverliensis Herrick

- 1504 $\frac{7692}{1}$ HYPOPLASTOTYPE *Lingula waverliensis* Herrick. Bulletin of Denison university. 1888. 4:12, 18.

Hall & Clarke, Paleontology of New York. 1892. v. 8, pt 1, pl. 4K, fig. 7.

Waverly sandstone

Oil City Pa.

LINGULELLA Salter**Lingulella caelata** Hall

- 1505 $\frac{7700}{1}$ HYPOTYPE *Orbicula caelata* Hall. Paleontology of New York. 1847. 1:290.

Lingulella caelata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 1.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 1506 $\frac{7700}{2}$ **HYPOTYPE** Walcott. United States geological survey bulletin 30. 1886. pl. 7, fig. 1.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 67, fig. 1.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 2.

Lower Cambric

Troy N. Y.

S. W. Ford purchase

- 1507 $\frac{7700}{3}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 3.

Lower Cambric

Troy N. Y.

S. W. Ford purchase

- 1508 $\frac{7700}{4}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 4.

Lower Cambric

Troy N. Y.

S. W. Ford purchase

Lingulella ? paliformis Hall

- 1509 $\frac{7701}{1}$ **HYPOTYPE** Lingula palaeformis Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 76.

Lingulella ? paliformis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 6.

Hamilton shales Shurger's glen, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

- 1510 $\frac{7701}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 7.

Hamilton shales Pratt's falls, Onondaga co. N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 1511 $\frac{7701}{3}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 8.

Hamilton shales Shurger's glen, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

LINGULEPIS Hall

Lingulepis antiqua Hall

- 1512 $\frac{7710}{1}$ **TYPE** Lingula antiqua Hall. Paleontology of New York. 1847. 1: 3, pl. 1, fig. 3c.

Potsdam sandstone Hammond, St Lawrence co. N. Y.

- 1513 $\frac{7710}{2}$ **TYPE** Hall. Paleontology of New York. 1847. v. 1, pl. 1, fig. 3d.

Potsdam sandstone

Hammond N. Y.

On slab with type of pl. 1, fig. 3c.

Lingulepis pinniformis Owen (sp.)

- 1514 $\frac{7711}{1}$ **HYPOTYPE** *Lingula pinniformis* Owen. Geologic-
al survey of Wisconsin, Iowa and Minnesota. 1852.
p. 583.

Lingula pinnaformis Hall. 16th annual report
of the New York state cabinet of natural history. 1863.
pl. 6, fig. 12.

Potsdam sandstone

Falls of St Croix Wis.

LINGULOPS Hall**Lingulops granti** Hall & Clarke

- 1515 $\frac{7720}{1}$ **PLASTOTYPE** *Lingulops granti* Hall & Clarke.
Paleontology of New York. 1892. v. 8, pt 1, p. 173,
pl. 4K, fig. 14.

Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 1, fig. 8.

Niagaran

Hamilton Ont.

- 1516 $\frac{7720}{2}$ **PLASTOTYPE** Hall & Clarke. Paleontology of New York.
1892. v. 8, pt 1, pl. 4K, fig. 15.

Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 1, fig. 7.

Niagaran

Hamilton Ont.

Lingulops norwoodi James (sp.)

- 1517 $\frac{7721}{1}$ **HYPOPLASTOTYPE** *Lingula norwoodi* James. Cin-
cinnati quarterly journal of science. 1875. 2:10.

Lingulops norwoodi Hall & Clarke. Paleontol-
ogy of New York. 1892. v. 8, pt 1, pl. 2, fig. 25.

Cincinnati

Cincinnati O.

- 1518 $\frac{7721}{2}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New
York. 1892. v. 8, pt 1, pl. 2, fig. 26.

Cincinnati

Cincinnati O.

Lingulops whitfieldi Hall

- 1519 $\frac{7722}{1}$ **PLASTOTYPE** *Lingulops whitfieldi* Hall. Notes on
some new or imperfectly known forms among the Brachiop-
oda. 1872. pl. 13, fig. 2.

Hall. 23d annual report of the New York state cabinet
of natural history. 1873. pl. 13, fig. 2.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 2, fig. 28.

Cincinnati

Maquoketa creek near Dubuque Ia.

- 1520 $\frac{7722}{3}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 29.
Cincinnatian Maquoketa creek near Dubuque Ia.
- 1521 $\frac{7722}{3}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 30.
Cincinnatian Maquoketa creek near Dubuque Ia.

LINNARSSONIA Walcott**Linnarssonina pretiosa** Billings (sp.)

- 1522 $\frac{7730}{1}$ **HYPOTYPE: HYPOPLASTOTYPE** *Obolella pretiosa* Billings. Paleozoic fossils. 1865. 1:68.
Linnarssonina pretiosa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 43.
Upper Cambrian Little Metis, Quebec
Sir W. Dawson, donor
- 1523 $\frac{7730}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 44.
Upper Cambrian Little Metis, Quebec
Sir W. Dawson, donor

Linnarssonina transversa Hartt (sp.)

- 1524 $\frac{7731}{1}$ **HYPOPLASTOTYPE** *Obolella transversa* Hartt. Dawson's Acadian geology. Ed. 2. 1868. p. 644.
Linnarssonina transversa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 39.
St John group Porter's brook, N. B.
- 1525 $\frac{7731}{2}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 40, 41.
St John group Porter's brook N. B.

LIORHYNCHUS Hall**Liorhynchus (?) boonense** Shumard (sp.)

- 1526 $\frac{7740}{1}$ **HYPOTYPE** *Rhynchonella boonensis* Shumard. Geological report of Missouri. 1855. p. 205.
Liorhynchus boonensis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 35.
Choteau limestone Cooper county, Mo.

Liorhynchus globuliforme Vanuxem (sp.)

- 1527 $\frac{7741}{1}$ **HYPOTYPE** *Atrypa globuliformis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 182.
Leiorhynchus globuliformis Hall. Paleontology of New York. 1867. v. 4, pl. 57, fig. 27.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 59, fig. 26.

Ithaca beds Otsego county, N. Y.

1528 $\frac{7741}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1867. v. 4, pl. 57, fig. 29.

Ithaca beds Otsego county, N. Y.

On slab with type of v. 4, pl. 57, fig. 27.

1529 $\frac{7741}{3}$ HYPOTYPE Hall & Clark. Paleontology of New York.
1894. v. 8, pt 2, pl. 59, fig. 27.

Ithaca beds Broome county, N. Y.

Liorhynchus laura Billings (sp.)

1530 $\frac{7742}{1}$ HYPOTYPE Rhynchonella? laura Billings. Canadian
journal. May 1860. 5:273.

Liorhynchus laura Hall & Clarke. Paleontology
of New York. 1894. v. 8, pt 2, pl. 59, fig. 15, 16.

Hamilton beds Thedford Ont.

1531 $\frac{7742}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 59, fig. 17.

Hamilton beds Thedford Ont.

Liorhynchus limitare Vanuxem (sp.)

1532 $\frac{7743}{1}$ HYPOTYPE Orthis limitaris Vanuxem. Geology of
New York; report on the 3d district. 1842. p. 146.

Leiorhynchus limitaris Hall. Paleontology
of New York. 1867. v. 4, pl. 56, fig. 21.

Marcellus shales Otisco lake, N. Y.

G. B. Simpson, coll. 1863

Liorhynchus multicostum Hall

1533 $\frac{7744}{1}$ HYPOTYPE Leiorhynchus multicosta Hall. 13th
annual report of the New York state cabinet of natural
history. 1860. p. 85.

Hall. Paleontology of New York. 1867. v. 4,
pl. 56, fig. 28.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

Liorhynchus quadricostatum Vanuxem (sp.)

1534 $\frac{7745}{1}$ HYPOTYPE Orthis quadricostata Vanuxem.
Geology of New York; report on the 3d district. 1842.
p. 168.

Leiorhynchus quadricostata Hall. Paleontology of New York. 1867. v. 4, pl. 56, fig. 48.

Genesee shale

Lodi, Seneca lake, N. Y.

J. Hall, coll.

MEGALANTERIS Oehlert

Megalanteris ovalis Hall

- 1535 $\frac{7750}{1}$ HYPOTYPE *Megalanteris ovalis* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 101.

Megalanteris ovalis Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 13, 14.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1536 $\frac{7750}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 15.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1537 $\frac{7750}{3}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 16.

Oriskanian

Becraft mountain, Hudson N. Y.

Megalanteris ovalis *see* *Megalanteris ovalis*

MERISTA Suess

Merista arcuata *see* *Meristella arcuata*

Merista bella *see* *Meristella bella*

Merista tennesseensis Hall & Clarke

- 1538 $\frac{7760}{1}$ TYPE *Merista tennesseensis* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 3. Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 8, fig. 24.

Helderbergian

Perry county, Tenn.

- 1539 $\frac{7760}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 4.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 8, fig. 25.

Helderbergian

Perry county, Tenn.

Merista typus Hall

- 1540 $\frac{7761}{1}$ HYPOTYPE *Camarium typum* Hall. Paleontology of New York. 1859. 3:487.

Merista typus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 9.

Helderbergian

Cumberland Md.

- 1541 $\frac{7761}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 42, fig. 12.
Helderbergian Cumberland Md.

MERISTELLA Hall

Meristella barrisi Hall

- 1542 $\frac{7770}{1}$ TYPE Meristella barrisi Hall. 13th annual report
of the New York state cabinet of natural history. 1860.
p. 84.
Hall. Paleontology of New York. 1867. v. 4, pl. 49,
fig. 6, 7.
Marcellus (Stafford) limestone Near Leroy N. Y.
- 1543 $\frac{7770}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 44, fig. 27, 28.
Marcellus (Stafford) limestone Stafford N. Y.

Meristella bella Hall

- 1544 $\frac{7771}{1}$ HYPOTYPE Meristella bella Hall. 10th annual report
of the New York state cabinet of natural history. 1857.
p. 92.
Meristella bella Hall & Clarke. Paleontology of
New York. 1894. v. 8, pt 2, pl. 44, fig. 1.
Helderbergian The Helderberg, N. Y.
- 1545 $\frac{7771}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 44, fig. 2, 3.
Helderbergian The Helderberg, N. Y.

Meristella doris Hall

- 1546 $\frac{7772}{1}$ TYPE Meristella doris Hall. 13th annual report of
the New York state cabinet of natural history. 1860.
p. 84.
Hall. Paleontology of New York. 1867. v. 4, pl. 50,
fig. 2.
Onondaga limestone Williamsville, Erie co. N. Y.
- 1547 $\frac{7772}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 50, fig. 11.
Onondaga limestone Clarence, Erie co. N. Y.

Meristella haskinsi Hall

- 1548 $\frac{7773}{1}$ TYPE Meristella haskinsi Hall. 13th annual
report of the New York state cabinet of natural history.
1860. p. 84.

Hall. Paleontology of New York. 1867. v. 4, pl. 49, fig. 26, 27, 30.

Hamilton shales

York, Livingston co. N. Y.

C. A. White, coll. 1860

- 1549 $\frac{7773}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 49, fig. 28, 31.

Hamilton shales

York N. Y.

C. A. White, coll. 1860

- 1550 $\frac{7773}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 49, fig. 29, 32, 33.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 43, fig. 23, 24.

Hamilton shales

York N. Y.

C. A. White, coll. 1860

- 1551 $\frac{7773}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 49 fig. 34.

Hamilton shales

York N. Y.

C. A. White, coll. 1860

- 1552 $\frac{7773}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 31.

Hamilton shales

Canandaigua lake, N. Y.

Meristella laevis see *Whitfieldella cf. laevis*

***Meristella lenta* Hall**

- 1553 $\frac{7774}{1}$ HYPOTYPE *Meristella lenta* Hall. Paleontology of New York. 1867. 4:420.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 18.

Oriskanian

De Cewville Ont.

***Meristella lentiformis* Clarke**

- 1554 $\frac{7775}{1}$ TYPE *Meristella lentiformis* Clarke. New York state museum memoir 3. 1900. p. 44, pl. 6, fig. 5; 6.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1555 $\frac{7775}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 7.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1556 $\frac{7775}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 8-10.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1557 $\frac{7775}{4}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 6, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.
Meristella maria see *Meristina maria*
- Meristella nasuta* Conrad (sp.)**
- 1558 $\frac{7776}{1}$ HYPOTYPE *Atrypa nasuta* Conrad. Journal of the
Academy of natural sciences of Philadelphia. 1839.
8:265.
Meristella nasuta Hall. Paleontology of New
York. 1867. v. 4, pl. 48, fig. 1.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 44, fig. 26.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1559 $\frac{7776}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 48, fig. 2.
Schoharie grit Schoharie county, N. Y.
- 1560 $\frac{7776}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 48, fig. 3.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 44, fig. 14.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1561 $\frac{7776}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 48, fig. 5.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 44, fig. 13.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1562 $\frac{7776}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 48, fig. 6.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862
- 1563 $\frac{7776}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 48, fig. 15, 16.
Schoharie grit Schoharie county, N. Y.
- 1564 $\frac{7776}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 44, fig. 19.
Onondaga limestone Leroy N. Y.

- 1565 $\frac{7776}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 24.
Onondaga limestone Leroy N. Y.
Meristella rectirostra *see* *Meristina rectirostra*

***Meristella rostrata* Hall**

- 1566 $\frac{7777}{1}$ HYPOTYPE *Atrypa rostrata* Hall. Geology of New York; report on the 4th district. 1843. p. 202.
Meristella rostrata Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 13-16.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 43, fig. 27, 28.
Tully limestone Ovid, Seneca co. N. Y.

- 1567 $\frac{7777}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 17.
Tully limestone Ovid N. Y.

- 1568 $\frac{7777}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 63, fig. 15-18.
Hamilton shales Pavilion, Genesee co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Meristella ? unisulcata *see* *Pentagonia unisulcata var. biplicata*

Meristella (Pentagonia) unisulcata *see* *Pentagonia unisulcata*

Meristella (Pentagonia) unisulcata var. biplicata *see* *Pentagonia unisulcata var. biplicata*

***Meristella ? vascularia* Clarke**

- 1569 $\frac{7778}{1}$ TYPE *Meristella ? vascularia* Clarke. New York state museum memoir 3. 1900. p. 45, pt 6, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

- 1570 $\frac{7778}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 13.
Oriskanian Becraft mountain, Hudson N. Y.

- 1571 $\frac{7778}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 14.
Oriskanian Becraft mountain, Hudson N. Y.

***Meristella walcotti* Hall & Clarke**

- 1572 $\frac{7779}{1}$ TYPE *Meristella walcotti* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 365, pl. 44, fig. 6, 7, 9, 11.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 8, fig. 27, 28.

Oriskanian

Cayuga Ont.

C. D. Walcott, coll. 1878

- 1573 $\frac{7779}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 8.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 8, fig. 29.

Oriskanian

Cayuga Ont.

- 1574 $\frac{7779}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 10.

Oriskanian

Cayuga Ont.

C. D. Walcott, coll. 1878

MERISTINA Hall

Meristina maria Hall

- 1575 $\frac{7790}{1}$ HYPOTYPE Meristella maria Hall. Transactions of the Albany institute. 1863. 4: 212.

Meristina maria Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 8.

Niagaran

Waldron Ind.

- 1576 $\frac{7790}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 10.

Niagaran

Waldron Ind.

- 1577 $\frac{7790}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 12.

Niagaran

Waldron Ind.

- 1578 $\frac{7790}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 13.

Niagaran

Waldron Ind.

Meristina nitida *see* Whitfieldella nitida

Meristina rectirostra Hall

- 1579 $\frac{7791}{1}$ TYPE Meristella rectirostra Hall. Descriptions of new species of fossils from Waldron Ind. 1879. p. 15.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 13.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1580 $\frac{7791}{2}$ TYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 14.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1581 $\frac{7791}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 4, 4a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1582 $\frac{7791}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 5, 5a.
Niagaran Waldron Ind.
- 1583 $\frac{7791}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 11.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 18.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1584 $\frac{7791}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 13, 13a.
Meristina rectirostra Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 21.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

METAPLASIA Hall & Clarke

Metaplasia pyxidata Hall

- 1585 $\frac{7800}{1}$ HYPOTYPE: HYPOPLASTOTYPE Spirifer pyxidatus Hall. Paleontology of New York. 1859. 3:428.
Metaplasia pyxidata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 19, 20.
Oriskanian Cayuga Ont.
J. DeCew, coll. 1866
On slab with type of v.8, pt 2, pl. 39, fig. 22.
- 1586 $\frac{7800}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 21.
Oriskanian Cayuga Ont.
J. DeCew, coll. 1866
- 1587 $\frac{7800}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 22.
Oriskanian Cayuga Ont.
J. DeCew, coll. 1866
On slab with type of v. 8, pt 2, pl. 39, fig. 19, 20.

MIMULUS Barrande

Mimulus waldronensis Miller & Dyer (sp.)

- 1588 $\frac{7810}{1}$ HYPOTYPE *Spirifera* (?) *waldronensis* Miller & Dyer. Journal of the Cincinnati society of natural history. 1878. 1:37.

Streptis waldronensis Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 9-9b.

Mimulus waldronensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 11C, fig. 23, 24.
Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1589 $\frac{7810}{2}$ HYPOTYPE *Triplesia putillus* Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 19-22.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 10-10b.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 11C, fig. 25-28.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

MONOMERELLA Billings

Monomerella egani Hall & Clarke

- 1590 $\frac{7820}{1}$ PLASTOTYPE *Monomerella egani* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 175, pl. 4C, fig. 16.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 3.

Niagaran Grafton Wis.

Monomerella greenii Hall & Clarke

- 1591 $\frac{7821}{1}$ PLASTOTYPE *Monomerella greenii* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 174, pl. 4D, fig. 5.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 9.

Niagaran Grafton Wis.

- 1592 $\frac{7821}{2}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4D, fig. 7.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 12.

Niagaran Grafton Wis.

- 1593 $\frac{7821}{3}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4D, fig. 9.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 14.
Niagaran Grafton Wis.
- 1594 $\frac{7821}{4}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4D, fig. 10.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 11.
Niagaran Grafton Wis.
- Monomerella kingi** Hall & Clarke
- 1595 $\frac{7822}{1}$ PLASTOTYPE *Monomerella kingi* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 174, pl. 4D, fig. 1.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 1.
Niagaran Hawthorne Ill.
- Monomerella ortonii** Hall & Clarke
- 1596 $\frac{7823}{1}$ PLASTOTYPE *Monomerella ortonii* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 175, pl. 4C, fig. 15.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 5.
Niagaran Rising Sun O.
- Monomerella prisca** Billings
- 1597 $\frac{7824}{1}$ HYPOPLASTOTYPE *Monomerella prisca* Billings. Canadian naturalist and geologist. 1871. new ser. 6: 221.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4C, fig. 7.
Niagaran Hawthorne Ill.
- 1598 $\frac{7824}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4C, fig. 13.
Niagaran Hawthorne Ill.
- NEWBERRIA** Hall
- Newberria johannis** Hall
- 1599 $\frac{7830}{1}$ TYPE *Rensselaeria? johanni* Hall. Paleontology of New York. 1867. 4: 385, pl. 58A, fig. 12.
Newberria johannis Hall. 10th annual report of the New York state geologist. 1891. pl. 6, fig. 1.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 78, fig. 14.

Hamilton beds

Waterloo Ia.

R. P. Whitfield, coll. 1866

1600 $\frac{7830}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A,
fig. 16, 17.

Hall. 10th annual report of the New York state
geologist. 1891. pl. 6, fig. 10, 11.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 78, fig. 12, 13.

Hamilton beds

Waterloo Ia.

R. P. Whitfield, coll. 1866

NUCLEOSPIRA Hall

Nucleospira concinna Hall

1601 $\frac{7840}{1}$ HYPOTYPE *Atrypa concinna* Hall. Geology of New
York; report on the 4th district. 1843. p. 200.

Nucleospira concinna Hall. Paleontology
of New York. 1867. v. 4, pl. 45, fig. 33.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

1602 $\frac{7840}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 45, fig. 34, 35.

Onondaga limestone Litchfield, Herkimer co. N. Y.

1603 $\frac{7840}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 45, fig. 37.

Hamilton shales

Alexander, Genesee co. N. Y.

1604 $\frac{7840}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 45, fig. 53.

Hall & Clarke. Paleontology of New York. 1894.

v. 8, pt 2, pl. 48, fig. 20.

Hamilton shales

Cardiff, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

1605 $\frac{7840}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 45, fig. 56.

Hamilton shales

Owasco lake, N. Y.

G. B. Simpson, coll. 1863

1606 $\frac{7840}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 45, fig. 57.

Hall & Clarke. Paleontology of New York. 1894.

v. 8, pt 2, pl. 48, fig. 19.

Hamilton shales

Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

- 1607 $\frac{7840}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 48, fig. 22.
Hamilton shales Canandaigua lake, N. Y.
- 1608 $\frac{7840}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 48, fig. 24.
Hamilton shales Canandaigua lake, N. Y.
- 1609 $\frac{7840}{9}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 48, fig. 26.
Hamilton shales Canandaigua lake, N. Y.
- 1610 $\frac{7840}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 48, fig. 27.
Hamilton shales Canandaigua lake, N. Y.
- 1611 $\frac{7840}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 48, fig. 29.
Hamilton shales Canandaigua lake, N. Y.
- 1612 $\frac{7840}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 48, fig. 33.
Onondaga limestone Falls of the Ohio, Ky.
- 1613 $\frac{7840}{13}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 145, fig. 131.
Hamilton shales Canandaigua lake, N. Y.

Nucleospira elegans Hall

- 1614 $\frac{7841}{1}$ HYPOTYPE *Nucleospira elegans* Hall. Paleontology of New York. 1859. 3:222.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 48, fig. 10.
Helderbergian Schoharie N. Y.
Nucleospira rotundata see *Whitfieldella cf. rotundata*

Nucleospira ventricosa Hall

- 1615 $\frac{7842}{1}$ HYPOTYPE *Spirifer ventricosus* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 57.
Nucleospira ventricosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 84, fig. 39.
Helderbergian Near Clarksville N. Y.
- 1616 $\frac{7842}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 145, fig. 128.
Helderbergian Near Clarksville N. Y.

OBOLELLA Billings

Obolella crassa Hall

- 1617 $\frac{7850}{1}$ **HYPOTYPE** *Orbicula? crassa* Hall. Paleontology of New York. 1847. 1:290.
Obolella crassa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 34.
 Lower Cambrian Troy N. Y.
 S. W. Ford purchase.
- 1618 $\frac{7850}{2}$ **HYPOTYPE** Ford. American journal of science. 1881. 3d ser. 21:131, fig. 1.
 Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1f.
 Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 71, fig. 4f.
 Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 35.
 Lower Cambrian Troy N. Y.
 S. W. Ford purchase
- 1619 $\frac{7850}{3}$ **HYPOTYPE** Ford. American journal of science. 1881. 3d ser. 21:131, fig. 2.
 Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1d.
 Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 71, fig. 4d.
 Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 36.
 Lower Cambrian Troy N. Y.
 S. W. Ford purchase
- 1620 $\frac{7850}{4}$ **HYPOTYPE** Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1.
 Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 71, fig. 4.
 Lower Cambrian Troy N. Y.
 S. W. Ford purchase
- 1621 $\frac{7850}{5}$ **HYPOTYPE** (combination figure) Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1b.
 Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 67, fig. 1.
 Lower Cambrian Troy N. Y.
 S. W. Ford purchase
- Obolella desiderata* see *Elkania desiderata*

Obolella gemma Billings

- 1622 $\frac{7851}{1}$ HYPOTYPE *Obolella gemma* Billings. Canadian naturalist and geologist. 1872. new ser. 6: 218.

Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 2a.

Walcott. 10th annual report of the United States geological survey. 1890. pl. 72, fig. 2.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 42.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 1623 $\frac{7851}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 43 [34].

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 1624 $\frac{7851}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 44.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

Obolella polita Hall

- 1625 $\frac{7852}{1}$ HYPOPLASTOTYPE *Lingula? polita* Hall. Annual report of the geological survey of Wisconsin. 1861. p. 24.

Obolella polita Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 38.

Potsdam sandstone

Trempealeau Wis.

Obolella pretiosa see *Linnarssonina pretiosa*

Obolella transversa see *Linnarssonina transversa*

Obolus conradi see *Dinobolus conradi*

Obolus galtensis see *Rhinobolus galtensis*

OEHLERTELLA Hall & Clarke**Oehlertella exilis** Hall

- 1626 $\frac{7860}{1}$ TYPE *Lingula exilis* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 76, 77, fig. 2.

Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 8.

Marcellus shale

Bridgewater N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

- 1627 $\frac{7860}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 1, fig. 9.
Hamilton beds Schoharie county, N. Y.
Orbicula caelata see *Lingulella caelata*
Orbicula ? *crassa* see *Obolella crassa*
Orbicula ? *filosa* see *Schizocrania filosa*
Orbicula grandis see *Roemerella grandis*
Orbicula lodensis see *Orbiculoidea lodensis*
Orbicula tenuilamellata see *Orbiculoidea*
(*Schizotreta*?) *tenuilamellata*
Orbicula ? *squamiformis* see *Pholidops squami-*
formis

ORBICULOIDEA d'Orbigny

Orbiculoidea alleghania Hall

- 1628 $\frac{7870}{1}$ **HYPOTYPE** *Discina alleghania* Hall. 13th annual
report of the New York state cabinet of natural history.
1860. p. 77.
Hall. Paleontology of New York. 1867. v. 4, pl. 1,
fig. 17c.
Chemung beds Belvidere, Allegany co. N. Y.

Orbiculoidea doria ? Hall

- 1629 $\frac{7871}{1}$ **HYPOTYPE** *Discina doria* Hall. 16th annual report
of the New York state cabinet of natural history. 1863.
p. 26.
? Hall. Paleontology of New York. 1867. v. 4, pl. 2,
fig. 30, 31.
Hamilton shales East shore of Seneca lake, N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

Orbiculoidea lodensis Vanuxem (sp.)

- 1630 $\frac{7872}{1}$ **HYPOTYPE** *Orbicula lodensis* Vanuxem. Geology
of New York; report on the 3d district. 1842. p. 168.
Discina lodensis Hall. Paleontology of New
York. 1867. v. 4, pl. 2, fig. 35.
Genesee shale Ogdens ferry, Cayuga lake, N. Y.
- 1631 $\frac{7872}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall & Clarke. Paleon-
tology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 21.
Genesee shale Lodi N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Orbiculoidea manhattanensis Meek & Hayden (sp.)

- 1632 $\frac{7873}{1}$ HYPOTYPE *Discina manhattanensis* Meek & Hayden. Proceedings of the Academy of natural sciences of Philadelphia. 1859. p. 25.

Orbiculoidea manhattanensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 20.

Coal measures

Riley county, Kan.

Orbiculoidea marginalis Whitfield (sp.)

- 1633 $\frac{7874}{1}$ HYPOPLASTOTYPE *Discina marginalis* Whitfield. Annual report of the geological survey of Wisconsin. 1880. p. 70.

Orbiculoidea marginalis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 17.

Hamilton beds

Cementville Wis.

Orbiculoidea media Hall

- 1634 $\frac{7875}{1}$ TYPE *Discina media* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 27.

Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 25.

Orbiculoidea media Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 15.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

- 1635 $\frac{7875}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 26.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 16.

Hamilton beds

Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

Orbiculoidea media var. Hall

- 1636 $\frac{7876}{1}$ TYPE *Discina* (sp.?) Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 28.

Discina media var. Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 29.

Marcellus shale

Bridgewater, Oneida co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Orbiculoidea neglecta Hall

- 1637 $\frac{7877}{1}$ TYPE *Discina neglecta* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 29.

Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 12.

Ithaca beds Inclined plane, Ithaca N. Y.

- 1638 $\frac{7877}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 13.

Ithaca beds Inclined plane, Ithaca N. Y.

Orbiculoidea newberryi Hall

- 1639 $\frac{7878}{1}$ HYPOTYPE *Discina newberryi* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 30.

Orbiculoidea newberryi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 18.

Waverly beds Cuyahoga Falls O.

Orbiculoidea numulus Hall & Clarke

- 1640 $\frac{7879}{1}$ TYPE *Orbiculoidea numulus* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 14.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 11.

Manlius horizon Marshall N. Y.

Orbiculoidea pulchra Hall & Clarke

- 1641 $\frac{7890}{1}$ PLASTOTYPE *Orbiculoidea pulchra* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 8.

Cuyahoga shale Berea O.

- 1642 $\frac{7890}{2}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 9.

Cuyahoga shale Berea O.

- 1643 $\frac{7890}{3}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 13.

Cuyahoga shale Berea O.

Orbiculoidea cf. pulchra Hall & Clarke

- 1644 $\frac{7891}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Orbiculoidea cf. pulchra* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 14.

Waverly beds Meadville Pa.

- 1645 $\frac{7891}{2}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 15.

Waverly beds

Meadville Pa.

- 1646 $\frac{7891}{3}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 16.

Waverly beds

Meadville Pa.

Orbiculoidea randalli Hall

- 1647 $\frac{7892}{1}$ **TYPE** *Discina randalli* Hall. 16th annual report New York state cabinet of natural history. 1863. p. 25. Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 34.

Orbiculoidea randalli Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 18.

Hamilton beds

Near Schoharie N. Y.

Orbiculoidea (Schizotreta) ovalis Hall & Clarke

- 1648 $\frac{7893}{1}$ **TYPE** *Orbiculoidea (Schizotreta) ovalis* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 177, pl. 4E, fig. 4, 5.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 12, 13.

Trenton limestone

Middleville N. Y.

Orbiculoidea (Schizotreta?) tenuilamellata Hall

- 1649 $\frac{7894}{1}$ **HYPOTYPE** *Orbicula tenuilamellata* Hall. Paleontology of New York. 1852. 2:250.

Orbiculoidea (Schizotreta?) tenuilamellata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 2.

Niagaran

Hamilton Ont.

C. D. Walcott, coll. 1878

- 1650 $\frac{7894}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 3.

Niagaran

Hamilton Ont.

C. D. Walcott, coll. 1878

Orbiculoidea tullia Hall

- 1651 $\frac{7895}{1}$ **TYPE** *Discina tullia* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 28. Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 16, 17.

Tully limestone

Ovid, Seneca co. N. Y.

ORISKANIA Hall & Clarke

Oriskania sinuata Clarke

- 1652 $\frac{7910}{1}$ TYPE *Oriskania sinuata* Clarke. New York state museum memoir 3. 1900. p. 38, pl. 5, fig. 9, 10.

Oriskanian

Becraft mountain, Hudson N. Y.

J. M. Clarke, coll.

- 1653 $\frac{7910}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 11.

Oriskanian

Becraft mountain, Hudson N. Y.

J. M. Clarke, coll.

- 1654 $\frac{7910}{3}$ TYPE: PLASTOTYPE New York state museum memoir 3. 1900. pl. 5, fig. 12.

Oriskanian

Becraft mountain, Hudson N. Y.

J. M. Clarke, coll.

ORTHIS Dalman

Orthis alsus *see* *Rhipidomella alsus***Orthis arcuaria** Hall & Clarke

- 1655 $\frac{7920}{1}$ TYPE *Orthis arcuaria* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 224, pl. 5C, fig. 20, 21.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 4, fig. 13, 14.

Niagaran

Perry county, Tenn.

James M. Safford, donor

Orthis bisulcata *see* *Cyclospira bisulcata**Orthis cleobis* *see* *Rhipidomella cleobis***Orthis costalis** Hall

- 1656 $\frac{7921}{1}$ TYPE *Orthis costalis* Hall. Paleontology of New York. 1847. 1: 20, pl. 4 bis, fig. 4b (first).

Chazy limestone

Chazy N. Y.

Orthis elegantula *see* *Dalmanella elegantula**Orthis?* *erratica* *see* *Zygospira* (*Orthonomaea*) *erratica***Orthis (?) holstoni** Safford

- 1657 $\frac{7922}{1}$ TYPE *Orthis (?) holstoni* (Safford ms.) Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5A, fig. 35-37.

Trenton horizon

Near Nashville Tenn.

James M. Safford, donor

Orthis hybrida *see* *Rhipidomella hybrida**Orthis interlineata* *see* *Schizophoria tioga*

- Orthis keokuk* *see* *Derbya keokuk*
Orthis laurentina *see* *Billingsella* (?) *laurentina*
Orthis lenticularis *see* *Dalmanella elegantula*
Orthis leonensis *see* *Dalmanella leonensis*
Orthis leucosia *see* *Rhipidomella leucosia*
Orthis limitaris *see* *Liorhynchus limitare*
Orthis livia *see* *Rhipidomella livia*
Orthis multistriata *see* *Schizophoria multistriata*
Orthis oblata *see* *Rhipidomella oblata*
Orthis peloris *see* *Rhipidomella peloris*
Orthis penelope *see* *Rhipidomella penelope*
Orthis perelegans *see* *Dalmanella perelegans*
Orthis perversa *see* *Orthothes perversus*
Orthis praeumbona *see* *Ambocoelia praeumbona*
Orthis quadrans *see* *Dalmanella quadrans*
Orthis quadricostata *see* *Liorhynchus quadri-*
costatum

***Orthis* (?) *saffordi* Hall & Clarke**

- 1658 $\frac{7923}{1}$ TYPE *Orthis?* *saffordi* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 340, pl. 5A, fig. 38-40. Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 4, fig. 10 12.

Trenton limestone

Knoxville, Tenn.

James M. Safford, donor

- Orthis semele* *see* *Rhipidomella semele*
Orthis stonensis *see* *Dalmanella stonensis*
Orthis subumbona *see* *Spirifer subumbonus*
Orthis thiemei *see* *Rhipidomella* sp.
Orthis tioga *see* *Schizophoria tioga*
Orthis umbonata *see* *Ambocoelia umbonata*
Orthis vanuxemi *see* *Rhipidomella vanuxemi*
Orthisina arctostriata *see* *Orthothes che-*
mungensis var. arctostriata

ORTHOHETES Fischer de Waldheim

***Orthothes becraftensis* Clarke**

- 1659 $\frac{7930}{1}$ TYPE: PLASTOTYPE *Orthothes becraftensis* Clarke. New York state museum memoir 3. 1900. p. 51, pl. 7, fig. 16.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1660 $\frac{7930}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 17.
Oriskanian Becraft mountain, Hudson N. Y.
- 1661 $\frac{7930}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 18.
Oriskanian Becraft mountain, Hudson N. Y.
- 1662 $\frac{7930}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.
- 1663 $\frac{7930}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 20.
Oriskanian Becraft mountain, Hudson N. Y.
- 1664 $\frac{7930}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 21.
Oriskanian Becraft mountain, Hudson N. Y.
- 1665 $\frac{7930}{7}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 22.
Oriskanian Becraft mountain, Hudson N. Y.
- 1666 $\frac{7930}{8}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 23.
Oriskanian Becraft mountain, Hudson N. Y.
- 1667 $\frac{7930}{9}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 24.
Oriskanian Becraft mountain, Hudson N. Y.
- 1668 $\frac{7930}{10}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 25.
Oriskanian Becraft mountain, Hudson N. Y.
- 1669 $\frac{7930}{11}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 27.
Oriskanian Becraft mountain, Hudson N. Y.

Orthotheses bellulus Clarke

- 1670 $\frac{7931}{1}$ TYPE *Orthotheses bellulus* Clarke. 13th annual report of the New York state geologist. 1894. 1:176, pl. 4, fig. 2, 3.
Marcellus shales Livonia salt shaft,
Livingston county, N. Y.
- 1671 $\frac{7931}{2}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 4.
Marcellus shales Livonia salt shaft,
Livingston county, N. Y.

Orthothetes chemungensis Conrad (sp.)

- 1672 $\frac{7932}{1}$ **HYPOTYPE** *Strophomena chemungensis* Conrad. Journal of the academy of natural sciences of Philadelphia. 1839. 8: 257.
Streptorhynchus chemungensis Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 1.
 Chemung beds Leon, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1863
- 1673 $\frac{7932}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 8.
 Chemung beds Cattaraugus county, N. Y.
 C. Van Deloo, coll. 1863
- 1674 $\frac{7932}{3}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 10.
 Chemung beds Randolph N. Y.
- 1675 $\frac{7932}{4}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 18.
 Chemung beds Olean, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1863
- 1676 $\frac{7932}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 19.
 Chemung beds East Randolph, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1863
- 1677 $\frac{7932}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 20.
 Chemung beds Cherry Creek, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1863
- 1678 $\frac{7932}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 21.
 Chemung beds New Albion, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1863
- 1679 $\frac{7932}{8}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 22.
 Chemung beds Nichols, Tioga co. N. Y.
- 1680 $\frac{7932}{9}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 23.
 Chemung beds Cattaraugus county, N. Y.
 C. Van Deloo, coll. 1863
- 1681 $\frac{7932}{10}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall. Paleontology of New York. 1892. v. 8, pt 1, pl. 11A, fig. 14.
 Chemung beds Corning, Steuben co. N. Y.
 A. Sherwood, coll. 1871

Orthothetes chemungensis *var. arctostriatus* Hall

- 1682 $\frac{7933}{1}$ HYPOTYPE *Strophomena arctostriata* Hall.
Geology of New York; report on 4th district. 1843.
p. 266.

Streptorhynchus chemungensis *var. arctostriata* Hall. Paleontology of New York. 1867.
v. 4, pl. 9, fig. 1.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

- 1683 $\frac{7933}{2}$ HYPOTYPE *Orthisina arctostriata* Hall. 13th
annual report of the New York state cabinet of natural
history. 1860. p. 81, fig. 2.

Hall. Paleontology of New York. 1867. v. 4, pl. 9,
fig. 2.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1858

- 1684 $\frac{7933}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 9, fig. 7.

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1864

- 1685 $\frac{7933}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 9, fig. 11.

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Orthothetes hydraulicus Whitfield (sp.)

- 1686 $\frac{7934}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Streptorhynchus*
hydraulicum Whitfield. Annals of the New York
academy of sciences. 1882. 2: 193.

Orthothetes hydraulicus Grabau. Geological
society of America bulletin. 1900. v. 11, pl. 22, fig.
1a, 1b.

Manlius limestone

Erie county, N. Y.

A. W. Grabau, coll.

- 1687 $\frac{7934}{2}$ HYPOTYPE: HYPOPLASTOTYPE Grabau. Geological so-
ciety of America bulletin. 1900. v. 11, pl. 22, fig. 1c.

Manlius limestone

Erie county, N. Y.

A. W. Grabau, coll.

Orthothetes pandora Billings (sp.)

- 1688 $\frac{7935}{1}$ HYPOTYPE *Streptorhynchus pandora* Billings.
Canadian journal. 1860. 5: 226.
Streptorhynchus chemungensis var. *pandora* Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 11.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1689 $\frac{7935}{2}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 12.
Schoharie grit Clarksville, Albany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861
- 1690 $\frac{7935}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 13.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1691 $\frac{7935}{4}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 14.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 10, fig. 2.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1692 $\frac{7935}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 15.
Schoharie grit Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862
On slab with type of *Pholidops areolata* Hall. Pal. N. Y. v. 4, pl. 3, fig. 4.
- 1693 $\frac{7935}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 16.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 1694 $\frac{7935}{7}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 17.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 10, fig. 5.
Schoharie grit Clarksville, Albany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861
- 1695 $\frac{7935}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 18.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862

- 1696 $\frac{7935}{9}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 4, fig. 19.
Schoharie grit Near Clarksville, Albany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861
- 1697 $\frac{7935}{10}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 9, fig. 18-20.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 10, fig. 1.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860
- 1698 $\frac{7935}{11}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 9, fig. 21.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860
- 1699 $\frac{7935}{12}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 9, fig. 23.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 10, fig. 4.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860
- 1700 $\frac{7935}{13}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 9, fig. 27.
Onondaga limestone Near Litchfield,
Herkimer co. N. Y.

Orthothetes perversus Hall

- 1701 $\frac{7936}{1}$ TYPE *Orthis perversa* Hall. 10th annual report of
the New York state cabinet of natural history. 1857.
p. 137.
Streptorhynchus chemungensis var. per-
versa Hall. Paleontology of New York. 1867. v. 4,
pl. 9, fig. 16.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1702 $\frac{7936}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 9, fig. 17.
Hamilton shales Fabius N. Y.
G. B. Simpson, coll. 1863

Orthothetes subplanus Conrad (sp.)

- 1703 $\frac{7937}{1}$ HYPOTYPE *Strophomena subplana* Conrad. Jour-
nal of the Academy of natural sciences of Philadelphia.
1842. 8: 258.

Streptorhynchus subplanum Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 14, 14a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1704 $\frac{7937}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 16, 18.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1705 $\frac{7937}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 17, 20.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1706 $\frac{7937}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 19.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1707 $\frac{7937}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 8 (series of 13 growth stages).

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

***Orthotheses woolworthanus* Hall**

1708 $\frac{7938}{1}$ HYPOTYPE *Strophomena woolworthana* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 48.

Streptorhynchus woolworthana Hall. 2d annual report of the New York state geologist. 1883. pl. 39, fig. 29.

Orthotheses woolworthana Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 9, fig. 29.

Helderbergian

Schoharie county, N. Y.

J. Gebhard purchase

PARASTROPHIA Hall & Clarke

***Parastrophia hemiplicata* Hall**

1709 $\frac{7950}{1}$ HYPOTYPE *Atrypa hemiplicata* Hall. Paleontology of New York. 1847. 1:144.

Parastrophia hemiplicata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 63, fig. 2.

Trenton limestone

Jacksonburg N. Y.

PARAZYGA Hall & Clarke

Parazyga deweyi Hall

- 1710 $\frac{7960}{1}$ HYPOTYPE *Waldheimia deweyi* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 89.

Parazyga deweyi Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 43, 44.

Helderbergian The Helderberg, N. Y.

- 1711 $\frac{7960}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 45.

Helderbergian The Helderberg, N. Y.

- 1712 $\frac{7960}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 46.

Helderbergian The Helderberg, N. Y.

Parazyga hirsuta Hall

- 1713 $\frac{7961}{1}$ HYPOTYPE *Atrypa hirsuta* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 168.

Trematospira hirsuta Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 21, 22.

Hamilton shales Darien Center, Genesee co. N. Y.

C. A. White, coll. 1860

- 1714 $\frac{7961}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 23-27.

Parazyga hirsuta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 28-32.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

- 1715 $\frac{7961}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 36.

Hamilton shales Canandaigua lake, N. Y.

- 1716 $\frac{7961}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 37.

Hamilton shales Canandaigua lake, N. Y.

- 1717 $\frac{7961}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 39.

Hamilton shales Canandaigua lake, N. Y.

PATERULA Barrande

Paterula (?) sp. *see* Paterula amii**Paterula amii** Schuchert

- 1718 $\frac{7970}{1}$ PLASTOTYPE Paterula (?) sp. Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4K, fig. 1.
Paterula amii Schuchert. United States geological survey bulletin 87. 1897. p. 301.
Calciferous ? beds South of St John's Market,
Quebec

- 1719 $\frac{7970}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 2.
Trenton (Normans kill) shale Mount Moreno
Columbia co. N. Y.
R. Ruedemann and M. Sheehy, coll. 1899

PENTAGONIA Cozzens

Pentagonia unisulcata Conrad (sp.)

- 1720 $\frac{7980}{1}$ HYPOTYPE Atrypa unisulcata Conrad. 5th annual report of the New York geological survey. 1841. p. 56.
Meristella (Pentagonia) unisulcata Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 24.
Onondaga limestone Babcock hill, Oneida co. N. Y.
- 1721 $\frac{7980}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 27, 28.
Hamilton shales Centerfield N. Y.
- 1722 $\frac{7980}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 29.
Hamilton group Centerfield N. Y.

Pentagonia unisulcata *var. biplicata* Hall

- 1723 $\frac{7981}{1}$ TYPE Meristella ? unisulcata Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 2, fig. 18.
Meristella (Pentagonia) unisulcata *var. biplicata* Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 35.
Pentagonia unisulcata *var. biplicata* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 31.
Hamilton shales York, Livingston co. N. Y.
C. A. White, coll. 1860

PENTAMERELLA Hall

Pentamerella arata Conrad (sp.)

1724 $\frac{7990}{1}$ HYPOTYPE *Atrypa arata* Conrad. 5th annual report of the New York geological survey. 1841. p. 55.

Pentamerella arata Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 10.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

Pentamerella papilionensis *see* *Pentamerella pavilionensis*

Pentamerella pavilionensis Hall

1725 $\frac{7991}{1}$ TYPE *Pentamerus papilionensis* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 86.

Pentamerella papilionensis Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 28.

Hamilton shales

Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

1726 $\frac{7991}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 30.

Hamilton shales

West Bloomfield N. Y.

C. A. White and C. Van Deloo, coll. 1860

1727 $\frac{7991}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 35.

Pentamerella pavilionensis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 71, fig. 31.

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

PENTAMERUS Sowerby

Pentamerus elongatus *see* *Amphigenia elongata*

Pentamerus fornicatus *see* *Barrandella fornicata*

Pentamerus fornicatus var. *see* *Barrandella fornicata* var.

Pentamerus galeatus *see* *Sieberella galeata*

Pentamerus multicostatus *see* *Conchidium multicostatum*

Pentamerus oblongus Sowerby

- 1728 $\frac{8000}{1}$ HYPOTYPE *Pentamerus oblongus* Sowerby. Murchison's Silurian system. 1839. p. 641.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 70, fig. 2.
Clinton beds Rochester N. Y.
Pickett collection
- 1729 $\frac{8000}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 70, fig. 4.
Clinton beds Rochester N. Y.
- 1730 $\frac{8000}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 238, fig. 169.
Clinton beds Rochester N. Y.
Pickett collection
- 1731 $\frac{8000}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 238, fig. 170.
Clinton beds Rochester N. Y.
Pickett collection
- 1732 $\frac{8000}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 238, fig. 171.
Clinton beds Rochester N. Y.
Pickett collection
- Pentamerus papilionensis* see *Pentamerella papilionensis*
- Pentamerus verneuili* see *Anastrophia verneuili*

PHOLIDOPS Hall**Pholidops** sp. ?

- 1733 $\frac{8010}{1}$ TYPE: PLASTOTYPE *Pholidops* sp. ? Clarke. New York state museum memoir 3. 1900. p. 59, pl. 8, fig. 21.
Oriskanian Becraft mountain, Hudson N. Y.
- 1734 $\frac{8010}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 22.
Oriskanian Becraft mountain, Hudson N. Y.

Pholidops areolata Hall

- 1735 $\frac{8011}{1}$ TYPE *Pholidops areolata* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 31.
Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 4.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 4I, fig. 26.

Schoharie grit

Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

On slab with type of *Orthotheses pandora* Hall. Pal.

N. Y. v. 4, pl. 4, fig. 15.

1736 $\frac{8011}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 3, fig. 5.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 4I, fig. 25.

Schoharie grit

Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

On slab with type of *Stropheodonta callosa* Hall.
Pal. N. Y. v. 4, pl. 11, fig. 6.

Pholidops hamiltoniae Hall

1737 $\frac{8012}{1}$ PLASTOTYPE *Pholidops hamiltoniae* Hall. 13th
annual report of the New York state cabinet of natural
history. 1860. p. 92.

Hall. Paleontology of New York. 1867. v. 4, pl. 3,
fig. 8.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 4I, fig. 34.

Hamilton shales

Canandaigua lake, N. Y.

Pholidops? lamellosa Hall

1738 $\frac{8013}{1}$ TYPE *Pholidops? lamellosa* Hall. Paleontology
of New York. 1867. v. 4, pl. 3, fig. 11.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

Pholidops oblata Hall

1739 $\frac{8014}{1}$ TYPE *Pholidops oblata* Hall. Paleontology of
New York. 1867. v. 4, pl. 3, fig. 10.

Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 4I, fig. 36.

Hamilton shales

Carter's mills, Cayuga co. N. Y.

G. B. Simpson, coll. 1863

Pholidops ovata Hall

1740 $\frac{8015}{1}$ TYPE *Pholidops ovatus* Hall. Paleontology of
New York. 1859. 3:490, pl. 103B, fig. 7a, 7b.

Helderbergian

Near Clarksville N. Y.

- 1741 $\frac{8015}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 23.
Helderbergian Near Clarksville N. Y.

Pholidops patina Hall & Clarke

- 1742 $\frac{8016}{1}$ PLASTOTYPE Pholidops patina Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 182, pl. 41, fig. 28.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 19.

Onondaga limestone

De Cewville Ont.

Pholidops squamiformis Hall

- 1743 $\frac{8017}{1}$ HYPOPLASTOTYPE Orbicula? squamiformis Hall. Geology of New York; report on the 4th district. 1843. p. 108.

Pholidops squamiformis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 21.

Niagaran

Hamilton Ont.

Pholidops terminalis Hall

- 1744 $\frac{8018}{1}$ HYPOTYPE: HYPOPLASTOTYPE Pholidops terminalis Hall. Paleontology of New York. 1859. 3:490.

Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 23.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1745 $\frac{8018}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 24.

Oriskanian

Becraft mountain, Hudson N. Y.

- 1746 $\frac{8018}{3}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 25.

Oriskanian

Becraft mountain, Hudson N. Y.

PHOLIDOSTROPHIA Hall & Clarke

Pholidostrophia nacrea Hall

- 1747 $\frac{8020}{1}$ TYPE Strophomena (Strophodonta) nacrea Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 144.

Strophodonta nacrea Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 1a, 1f.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

PLATYSTROPHIA King

Platystrophia biforata Schlotheim (sp.)

- 1748 $\frac{8020}{1}$ HYPOTYPE *Terebratulites biforatus* Schlotheim.
Petrefactenkunde. 1820. p. 265.

Platystrophia biforata Hall & Clarke.
Paleontology of New York. 1892. v. 8, pt 1, pl. 5B,
fig. 10.

Trenton limestone

Trenton Falls N. Y.

Rust collection

PLECTAMBONITES Pander

Plectambonites productus Hall & Clarke

- 1749 $\frac{8040}{1}$ TYPE *Plectambonites producta* Hall & Clarke.
Paleontology of New York. 1894. v. 8, pt 2, p. 360,
pl. 84, fig. 23-25.

Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 6, fig. 11, 12.

Niagaran

Yellow Springs O.

PLETHORHYNCHA Hall & Clarke

Plethorhyncha barrandii Hall

- 1750 $\frac{8050}{1}$ TYPE *Rhynchonella barrandi* Hall. 10th an-
nual report of the New York state cabinet of natural
history. 1857. p. 82.

Hall. Paleontology of New York. 1859. v. 3, pl. 103,
fig. 3.

Oriskanian

Schoharie county, N. Y.

- 1751 $\frac{8050}{2}$ TYPE Hall. 10th annual report of the New York state
cabinet of natural history. 1857. p. 83, fig. 1, 3; p. 84,
fig. 4.

Hall. Paleontology of New York. 1859. v. 3, pl. 103,
fig. 5-7.

Oriskanian

Schoharie N. Y.

POLYTOECHIA Hall & Clarke

Polytoechia apicalis Whitfield (sp.)

- 1752 $\frac{8060}{1}$ HYPOTYPE *Hemipronites apicalis* Whitfield.
American museum of natural history bulletin. 1886. v. 1,
no. 8, p. 300.

Polytoechia apicalis Hall & Clarke. Paleon-
tology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 26.

Beekmantown limestone (Fort Cassin beds)

Fort Cassin Vt.

- 1753 $\frac{8060}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1892. v. 8, pt 1, pl. 7A, fig. 27.
Beekmantown limestone (Fort Cassin beds)

Fort Cassin Vt.

- 1754 $\frac{8060}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1892. v. 8, pt 1, p. 239, fig. 11.
Beekmantown limestone (Fort Cassin beds)

Fort Cassin Vt.

PORAMBONITES Pander

Porambonites gigas Schmidt

- 1755 $\frac{8070}{1}$ HYPOTYPE Porambonites gigas Hall & Clarke.
Paleontology of New York. 1894. v. 8, pt 2, pl. 63,
fig. 44.

Lower Siluric (Lykholmer-Schichten) Esthland, Russia

PRODUCTELLA Hall

Productella arctirostrata Hall

- 1756 $\frac{8080}{1}$ TYPE Productus arctirostratus Hall. 10th annual
report of the New York state cabinet of natural history.
1857. p. 177.

Productella arctirostrata Hall. Paleontology
of New York. 1867. v. 4, pl. 26, fig. 18.

Chemung beds

Leon, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

Productella bialveata Hall

- 1757 $\frac{8081}{1}$ TYPE Productella bialveata Hall. Paleontology
of New York. 1867. v. 4, pl. 26, fig. 24.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

- 1758 $\frac{8081}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 26, fig. 25.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

- 1759 $\frac{8081}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 26, fig. 26.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

- 1760 $\frac{8081}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 26, fig. 27.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

- 1761 $\frac{8081}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 28.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

Productella costatula Hall

- 1762 $\frac{8082}{1}$ TYPE *Productella costatula* Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 9.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 35.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 35.

Chemung beds East Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

On slab with type of v. 4, pl. 26, fig. 10.

- 1763 $\frac{8082}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 10.

Chemung beds

East Randolph N. Y.

C. Van Deloo, coll. 1863

On slab with type of v. 4, pl. 26, fig. 9.

- 1764 $\frac{8082}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 11, 12.

Chemung beds

Chemung county, N. Y.

- 1765 $\frac{8082}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 13-15.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 18-20.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 18-20.

Chemung beds

Chemung county, N. Y.

Productella dumosa Hall

- 1766 $\frac{8083}{1}$ TYPE *Productus dumosus* Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 99.

Productella dumosa Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 40.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 21.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 21.

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Productella hallana Walcott

- 1767 $\frac{8084}{1}$ HYPOTYPE *Productus dissimilis* Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 497.

Productus (*Productella*) *hallanus* Walcott. Monograph of the United States geological survey. 1884. 8: 130.

Productus (*Marginifera*??) *dissimilis* Hall (= *Productella hallana* Walcott) Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17A, fig. 11.

Upper Devonian

Lime creek, Ia.

Productella hirsuta *var. rectispina* Hall

- 1768 $\frac{8085}{1}$ TYPE *Productella hirsuta* *var. rectispina* Hall. Paleontology of New York. 1867. v. 4, p. 168, pl. 24, fig. 30.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

Productella hystriacula *see* *Strophalosia hystriacula*

Productella lachrymosa Conrad (sp.)

- 1769 $\frac{8086}{1}$ HYPOTYPE *Strophomena lachrymosa* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8: 256.

Productella lachrymosa Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 23.

Chemung beds

Ellington, Chautauqua co. N. Y.

C. Van Deloo, coll. 1863

- 1770 $\frac{8086}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 24.

Chemung beds

Cold Spring, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1771 $\frac{8086}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 26.

Chemung beds

Cherry Creek, Chautauqua co. N. Y.

C. Van Deloo, coll. 1863

- 1772 $\frac{8086}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 27.

Chemung beds

Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1773 $\frac{8086}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 25, fig. 28.
Chemung beds Ellington N. Y.
C. Van Deloo, coll. 1863.

Productella lachrymosa var. lima Hall

- 1774 $\frac{8087}{1}$ **TYPE** *Productella lachrymosa* var. *lima* Hall.
Paleontology of New York. 1867. v. 4, pl. 25, fig. 29, 30.
Chemung beds Chautauqua county, N. Y.
C. Van Deloo, coll. 1863

- 1775 $\frac{8087}{2}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4,
pl. 25, fig. 31.
Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 48, fig. 22.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 17, fig. 22.
Chemung beds Ellington, Chautauqua co. N. Y.
C. Van Deloo, coll. 1863

- 1776 $\frac{8087}{3}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4,
pl. 25, fig. 32.
Chemung beds Cattaraugus county, N. Y.
C. Van Deloo, coll. 1863

Productella lachrymosa var. stigmata Hall

- 1777 $\frac{8088}{1}$ **TYPE** *Productella lachrymosa* var. *stigmata*
Hall. Paleontology of New York. 1867. v. 4, pl. 25,
fig. 34, 35.
Chemung beds Chautauqua county, N. Y.
C. Van Deloo, coll. 1863

- 1778 $\frac{8088}{2}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4,
pl. 25, fig. 36.
Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

- 1779 $\frac{8088}{3}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4,
pl. 25, fig. 37, 38.
Chemung beds East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

- 1780 $\frac{8088}{4}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4,
pl. 25, fig. 39.
Chemung beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

- 1781 $\frac{8088}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 25, fig. 40, 41.

Chemung beds

Randolph N. Y.

C. Van Deloo, coll. 1863

Productella navicella Hall

- 1782 $\frac{8089}{1}$ TYPE Productus navicella Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 172.

Productella navicella Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 1, 3.

Onondaga limestone

Schoharie county, N. Y.

Productella onusta Hall

- 1783 $\frac{8090}{1}$ TYPE Productella onusta Hall. Paleontology of New York. 1867. 4:184, pl. 26, fig. 31.

Chemung beds New Albion, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1784 $\frac{8090}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 36-38.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 41.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 41.

Chemung beds

New Albion N. Y.

C. Van Deloo, coll. 1863

- 1785 $\frac{8090}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 39.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 43.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 43.

Chemung beds

Conewango, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1786 $\frac{8090}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 40.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 42.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 42.

Chemung beds

Conewango N. Y.

C. Van Deloo, coll. 1863

- 1787 $\frac{8090}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 41.
Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 46.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 46.
Chemung beds Conewango N. Y.
C. Van Deloo, coll. 1863
- 1788 $\frac{8090}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 42.
Chemung beds New Albion N. Y.
C. Van Deloo, coll. 1863
- Productella papulata** Hall
- 1789 $\frac{8091}{1}$ TYPE Productus (Productella) papulata Hall. Paleontology of New York. 1867. v. 4 (corrigenda), pl. 23, fig. 47, 48.
Hamilton shales Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1863
- Productella speciosa** Hall
- 1790 $\frac{8092}{1}$ TYPE Productus speciosus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 176.
Productella speciosa Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 1.
Chemung beds Leon, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 1791 $\frac{8092}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 4.
Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 1792 $\frac{8092}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 5.
Chemung beds Cattaraugus county, N. Y.
C. Van Deloo, coll. 1863
- 1793 $\frac{8092}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 8.
Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 25, 26.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 25, 26.
Chemung beds Cattaraugus county, N. Y.
C. Van Deloo, coll. 1863

Productella spinulicosta Hall

- 1794 $\frac{8093}{1}$ TYPE *Productus spinulicostae* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 173.

Productella spinulicosta Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 28-30.

Hamilton beds

Delphi Onondaga co. N. Y.

G. B. Simpson, coll. 1863.

- 1795 $\frac{8093}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 31.

Hamilton beds

Delphi N. Y.

G. B. Simpson, coll. 1863.

- 1796 $\frac{8093}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 32, 33.

Hamilton shales

Near Leroy, Genesee co. N. Y.

- 1797 $\frac{8093}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 34.

Hamilton shales

Apulia, Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863.

Productella truncata see *Strophalosia truncata*

Productella tullia Hall

- 1798 $\frac{8094}{1}$ TYPE *Productella tullia* Hall. Paleontology of New York. 1867. 4:164, pl. 23, fig. 42.

Hamilton beds

Delphi N. Y.

G. B. Simpson, coll. 1863.

- 1799 $\frac{8094}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 43.

Tully limestone

Ovid, Seneca co. N. Y.

PRODUCTUS Sowerby**Productus?** sp.?

- 1800 $\frac{8110}{1}$ TYPE *Productus?* sp.? Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 18, fig. 5.

Chemung beds

Cattaraugus county, N. Y.

Pickett collection

Productus arctirostratus see *Productella arctirostrata*

Productus dissimilis see *Productella hallana*

Productus (*Marginifera?*?) *dissimilis* see *Productella hallana*

Productus dumosus *see* *Productella dumosa*

Productus (*Productella*) *hallanus* *see* *Productella hallana*

Productus navicella *see* *Productella navicella*

Productus (*Productella*) *papulata* *see* *Productella papulata*

***Productus semireticulatus* Martin (sp.)**

1801 $\frac{8111}{1}$ HYPOPLASTOTYPE *Anomites semireticulatus* Martin. *Petrefacta Derbiensia*. 1809. p. 7.

Productus semireticulatus Hall & Clarke. *Paleontology of New York*. 1892. v. 8, pt 1, pl. 17A, fig. 18.

Coal measures Newcastle O.

Productus speciosus *see* *Productella speciosa*

Productus spinulicosta *see* *Productella spinulicosta*

Productus truncatus *see* *Strophalosia truncata*

PTYCHOSPIRA Hall & Clarke

***Ptychospira ferita* von Buch (sp.)**

1802 $\frac{8120}{1}$ HYPOTYPE *Terebratula ferita* von Buch. *Ueber Terebrateln*. 1834. p. 76.

Ptychospira ferita Hall & Clarke. *Paleontology of New York*. 1894. v. 8, pt 2, p. 113, fig. 102.

Middle Devonian Eifel, Germany

***Ptychospira longirostris* Kayser (sp.)**

1803 $\frac{8121}{1}$ HYPOTYPE *Retzia longirostris* Kayser. *Zeitsch. d. deutsch geolog. Gesellsch.* 1871. 23: 557.

Ptychospira longirostris Hall & Clarke. *Paleontology of New York*. 1894. v. 8, pt 2, pl. 50, fig. 12.

Middle Devonian Eifel, Germany

PUGNAX Hall & Clarke

***Pugnax mutatus* Hall**

1804 $\frac{8130}{1}$ HYPOTYPE *Rhynchonella mutata* Hall. *Transactions of the Albany institute*. 1858. 4: 10.

Pugnax mutatus Hall & Clarke. *Paleontology of New York*. 1894. v. 8, pt 2, pl. 60, fig. 20.

St Louis group Spargen hill, Ind.

1805 $\frac{8130}{2}$ HYPOTYPE Hall & Clarke. *Paleontology of New York*. 1894. v. 8, pt 2, pl. 60, fig. 21.

St Louis group Spargen hill, Ind.

Pugnax ottumwa White (sp.)

- 1806 $\frac{8131}{1}$ HYPOTYPE *Rhynchonella ottumwa* White.
 Proceedings of the Boston society of natural history.
 1862. 9: 23.

Pugnax ottumwa Hall & Clarke. Paleontology
 of New York. 1894. v. 8, pt 2, pl. 60, fig. 25.

St Louis group

Pella Ia.

- 1807 $\frac{8131}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
 1894. v. 8, pt 2, pl. 60, fig. 26.

St Louis group

Pella Ia.

RAFINESQUINA Hall & Clarke**Rafinesquina alternata** Conrad (sp.)

- 1808 $\frac{8140}{1}$ HYPOTYPE *Leptaena alternata* Conrad. 2d an-
 nual report of the New York geological survey. 1838.
 p. 115.

Rafinesquina alternata Hall & Clarke.
 Paleontology of New York. 1894. v. 8, pt 2, pl. 84,
 fig. 17.

Lorraine shales. Erratic block in western New York
 J. M. Clarke, coll.

- 1809 $\frac{8140}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
 1894. v. 8, pt 2, pl. 84, fig. 18.

Lorraine shales Erratic block in western New York
 J. M. Clarke, coll.

Rafinesquina fasciata Hall

- 1810 $\frac{8141}{1}$ TYPE *Leptaena fasciata* Hall. Paleontology of
 New York. 1847. 1:20, pl. 4 bis, fig. 3a.

Chazy limestone

Chazy N. Y.

On slab with types of pl. 4 bis, fig. 2a, 2b, 2c, 3b, 3c.

- 1811 $\frac{8141}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl.
 4 bis, fig. 3b.

Chazy limestone

Chazy N. Y.

On slab with types of pl. 4 bis, fig. 2a, 2b, 2c, 3a, 3c.

- 1812 $\frac{8141}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
 pl. 4 bis, fig. 3c.

Chazy limestone

Chazy N. Y.

On slab with types of pl. 4 bis, fig. 2a, 2b, 2c, 3a, 3b.

Rafinesquina incrassata Hall

- 1813 $\frac{8142}{1}$ TYPE *Leptaena incrassata* Hall. Paleontology
 of New York. 1847. 1:19, pl. 4 bis, fig. 2a.

Chazy limestone

Chazy N. Y.

On slab with types of pl. 4 bis, fig. 2b, 2c, 3a, 3b, 3c.

- 1814 $\frac{8142}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 4 bis, fig. 2b.
Chazy limestone Chazy N. Y.
On slab with types of pl. 4 bis, fig. 2a, 2c, 3a-3c.
- 1815 $\frac{8142}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 4 bis, fig. 2c.
Chazy limestone Chazy N. Y.
On slab with types of pl. 4 bis, fig. 2a, 2b, 3a-3c.

RENSSELAERIA Hall

Rensselaeria? johanni see *Newberria johannis*

Rensselaeria ovoides Eaton (sp.)

- 1816 $\frac{8150}{1}$ HYPOTYPE *Terebratula ovoides* Eaton. Geo-
logical textbook. 1832. p. 45.
Rensselaeria ovoides Hall. Paleontology of
New York. 1859. v. 3, pl. 104, fig. 3b.
Oriskanian Schoharie county, N. Y.
Albany institute, donor
- 1817 $\frac{8150}{2}$ HYPOTYPE Hall. Paleontology of New York. 1894.
v. 8, pt 2, pl. 75, fig. 5.
Oriskanian Schoharie N. Y.
- 1818 $\frac{8150}{3}$ HYPOTYPE Hall. Paleontology of New York. 1894. v. 8,
pt 2, pl. 76, fig. 18.
Oriskanian South Walpole Ont.
C. D. Walcott, coll. 1878
- 1819 $\frac{8150}{4}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 5, fig. 17, 18.
Oriskanian Becraft mountain, Hudson N. Y.
- 1820 $\frac{8150}{5}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 5, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.

RETZIA King

Retzia adrieni de Verneuil (sp.)

- 1821 $\frac{8160}{1}$ HYPOTYPE *Terebratula adrieni* de Verneuil. Bul.
soc. geol. France. 1845. 11:471.
Retzia adrieni Hall & Clarke. Paleontology of
New York. v. 8, pt 2, pl. 50, fig. 6.
Lower Devonic Departement de la Sarthe, France
- 1822 $\frac{8160}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 50, fig. 8.
Lower Devonic Departement de la Sarthe, France
Retzia evax see *Homoeospira evax*

Retzia longirostris *see* *Ptychospira longirostris*

Retzia sobrina *see* *Homoeospira sobrina*

Retzia vera var. *costata* *see* *Eumetria vera* var. *costata*

Retzia verneuiliana *see* *Eumetria verneuiliana*

RHINOBOLOUS Hall

Rhinobolus davidsoni Hall & Clarke

- 1823 $\frac{8170}{1}$ PLASTOTYPE *Rhinobolus davidsoni* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 176, pl. 4B, fig. 10.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 8.

Niagaran

Grafton Wis.

- 1824 $\frac{8170}{2}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 11.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 6.

Niagaran

Grafton Wis.

- 1825 $\frac{8170}{3}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 12.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 7.

Niagaran

Grafton Wis.

Rhinobolus galtensis Billings

- 1826 $\frac{8171}{1}$ HYPOPLASTOTYPE *Obolus galtensis* Billings. Paleozoic fossils. 1862. 1: 168.

Rhinobolus galtensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 7.

Guelph limestone

Galt Ont.

- 1827 $\frac{8171}{2}$ HYPOTYPE: HYPOPLASTOTYPE Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 8.

Guelph limestone

Elora Ont.

RHIPIDOMELLA Oehlert

Rhipidomella sp.

- 1828 $\frac{8180}{1}$ HYPOTYPE *Orthis thiemiei* White? Hall. Paleontology of New York. 1867. 4: 63, pl. 8, fig. 2.

Chemung beds Between Napoli and Conewango N. Y.

C. Van Deloo, coll. 1863

Rhipidomella alsa Hall

- 1829** $\frac{8181}{1}$ TYPE: PLASTOTYPE *Orthis alsus* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 33.

Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 2.

Schoharie grit Albany county, N. Y.

- 1830** $\frac{8181}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 3.

Schoharie grit Clarksville, Albany co, N. Y.

C. Van Deloo, coll. 1862

- 1831** $\frac{8181}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 4.

Schoharie grit Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

- 1832** $\frac{8181}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 5.

Schoharie grit Albany county, N. Y.

- 1833** $\frac{8181}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 6.

Schoharie grit Albany county, N. Y.

C. Van Deloo, coll. 1862

- 1834** $\frac{8181}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 7.

Schoharie grit Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

Rhipidomella cleobis Hall

- 1835** $\frac{8182}{1}$ TYPE *Orthis cleobis* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 35.

Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 9.

Onondaga limestone Clarence, Erie co, N. Y.

Rhipidomella hybrida Sowerby (sp.)

- 1836** $\frac{8182}{1}$ HYPOTYPE *Orthis hybrida* Sowerby. Murchison's Silurian system. 1839. p. 630.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 13, 13a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1837 $\frac{8183}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 14, 14a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1838 $\frac{8183}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 15, 15a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1839 $\frac{8183}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 18, 18a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Rhipidomella leucosia Hall

- 1840 $\frac{8184}{1}$ TYPE *Orthis leucosia* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 80.
Hall. Paleontology of New York. 1867. v. 4, pl. 7, fig. 4c-4f.
Hamilton shales Canandaigua lake, N. Y.

Rhipidomella livia Billings (sp.)

- 1841 $\frac{8185}{1}$ HYPOTYPE *Orthis livia* Billings. Canadian journal new ser. 1860. 5: 267.
Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 4a-4c.
Onondaga limestone Erie county, N. Y.

Rhipidomella oblata Hall

- 1842 $\frac{8186}{1}$ HYPOTYPE *Orthis oblata* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 41.
Rhipidomella oblata Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 14, 15.
Oriskanian Becraft mountain, Hudson N. Y.

Rhipidomella penelope Hall

- 1843 $\frac{8187}{1}$ HYPOTYPE *Orthis penelope* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 79.
Rhipidomella penelope Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 6A, fig. 10.
Hamilton shales Canandaigua lake, N. Y.

Rhipidomella peloris Hall

- 1844 $\frac{8188}{1}$ TYPE: PLASTOTYPE *Orthis peloris* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 32.

Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 1.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 1845 $\frac{8188}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 8.

Schoharie grit

Near Clarksville, Albany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

- 1846 $\frac{8188}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 9.

Rhipidomella peloris Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 6A, fig. 6,

Schoharie grit

Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

- 1847 $\frac{8188}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 10.

Schoharie grit

Knox N. Y.

C. Van Deloo, coll. 1862

Rhipidomella semele Hall.

- 1848 $\frac{8189}{1}$ TYPE *Orthis semele* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 34.

Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 7.

Onondaga limestone

Clarence, Erie co. N. Y.

- 1849 $\frac{8189}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 8.

Onondaga limestone

Clarence N. Y.

C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

Rhipidomella vanuxemi Hall

- 1850 $\frac{8190}{1}$ HYPOTYPE *Orthis vanuxemi* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 135.

Hall. Paleontology of New York. 1867. v. 4, pl. 6, fig. 30.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

- 1851 $\frac{8190}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
 1892. v. 8, pt 1, pl. 6A, fig. 8.
 From drift of Hamilton group Near Elmira N. Y.
 J. W. Hall and C. Van Deloo, coll. 1866

RHYNCHONELLA Fischer de Waldheim

Rhynchonella — ?

- 1852 $\frac{8200}{1}$ **TYPE** *Atrypa* sp. Paleontology. of New York. 1852.
 2: 330, pl. 74, fig. 12.
- Coralline (Cobleskill) limestone Schoharie N. Y.
- Rhynchonella abrupta* see *Uncinulus abruptus*
- Rhynchonella acinus* see *Camarotoechia* ?
acinus
- Rhynchonella barrandi* see *Plethorhynchus barrandii*
- Rhynchonella boonensis* see *Liorhynchus* ?
boonense
- Rhynchonella* (*Stenocisma*) *congregata*
 see *Camarotoechia congregata*
- Rhynchonella* (*Stenocisma*) *contracta*
 see *Camarotoechia contracta*
- Rhynchonella* (*Stenocisma*) *dotis* see
Camarotoechia dotis
- Rhynchonella* (*Stenocisma*) *duplicata*
 see *Camarotoechia* (?) *duplicata*
- Rhynchonella formosa* see *Stenochisma formosa*
- Rhynchonella glansfagea* see *Centronella glansfagea*
- Rhynchonella indianensis* see *Camarotoechia* ?
indianensis
- Rhynchonella* ? *laura* see *Liorhynchus laura*
- Rhynchonella mutabilis* see *Uncinulus mutabilis*
- Rhynchonella mutata* see *Pugnax mutatus*
- Rhynchonella neglecta* see *Camarotoechia* (?)
neglecta
- Rhynchonella nobilis* see *Uncinulus nobilis*
- Rhynchonella nucleolata* see *Uncinulus nucleolata*
- Rhynchonella oblata* see *Camarotoechia oblata*

Rhynchonella orbicularis *see* *Camarotoechia orbicularis*

Rhynchonella (*Stenocisma*) *orbicularis*
see *Camarotoechia orbicularis*

Rhynchonella ottumwa *see* *Pugnax ottumwa*

Rhynchonella? *reticulata* *see* *Eichwaldia reticulata*

***Rhynchonella* (?) *lamellata* Hall**

- 1853 $\frac{8201}{1}$ TYPE *Atrypa lamellata* Hall. Paleontology of New York. 1852. 2: 329, pl. 74, fig. 11a, 11b.
Coralline (Cobleskill) limestone Schoharie N. Y.

***Rhynchonella* (?) *robusta* Hall**

- 1854 $\frac{8202}{1}$ TYPE *Atrypa robusta* Hall. Paleontology of New York. 1852. 2: 71, pl. 23, fig. 7a-7d.
Clinton beds Lockport N. Y.

Rhynchonella sappho *see* *Camarotoechia sappho*

Rhynchonella (*Stenocisma*) *sappho* *see* *Camarotoechia sappho*

***Rhynchonella* (?) *semiplicata* Conrad (sp.)**

- 1855 $\frac{8203}{1}$ HYPOTYPE *Atrypa semiplicata* Conrad. 5th annual report of the New York geological survey. 1841. p. 56.

Rhynchonella semiplicata Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1a.

Helderbergian Schoharie or Herkimer county, N. Y.

- 1856 $\frac{8203}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1b.

Helderbergian Schoharie or Herkimer county, N. Y.

- 1857 $\frac{8203}{3}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1c.

Helderbergian Schoharie or Herkimer county, N. Y.

- 1858 $\frac{8203}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1l.

Helderbergian Schoharie or Herkimer county, N. Y.

Rhynchonella (*Stenocisma*) *stephani* *see* *Camarotoechia stevensi*

Rhynchonella? *tethys* *see* *Camarotoechia tethys*

Rhynchonella (*Stenocisma*) *tethys* *see* *Camarotoechia tethys*

Rhynchonella ventricosa *see* *Wilsonia ventricosa*

Rhynchonella venustula *see* *Hypothyris venustula*

Rhynchonella whitii *see* *Camarotoechia whitii*

RHYNCHOSPIRA Hall

Rhynchospira evax *see* *Homoeospira evax*

Rhynchospira formosa Hall

- 1859 $\frac{8210}{1}$ HYPOTYPE *Waldheimia formosa* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 88.

Rhynchospira formosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 24.

Helderbergian Clarksville N. Y.

- 1860 $\frac{8210}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 109, fig. 101.

Helderbergian Cumberland Tenn.

Rhynchospira lepida *see* *Trigeria* (?) *lepida*

Rhynchospira nobilis *see* *Cyclorhina nobilis*

Rhynchospira subglobosa Hall

- 1861 $\frac{8211}{1}$ TYPE *Rhynchospira subglobosa* Hall. Paleontology of New York. 1867. 4:421, pl. 63, fig. 23, 24.

Schoharie grit Schoharie N. Y.

C. Van Deloo, coll. 1862

RHYNCHOTRETA Hall

Rhynchotretra cuneata Dalman (sp.) *var. americana* Hall

- 1862 $\frac{8220}{1}$ HYPOTYPE *Atrypa cuneata* *var. americana* Hall. 28th annual report of the New York state cabinet of natural history. 1879. p. 167.

Rhynchotretra cuneata *var. americana* Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 13, 13a, 17, 17a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1863 $\frac{8220}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 18, 18a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1864 $\frac{8220}{3}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 4, fig. 19, 19a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1865 $\frac{8220}{4}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 4, fig. 20, 20a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1866 $\frac{8220}{5}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 4, fig. 21, 21a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1867 $\frac{8220}{6}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 4, fig. 22, 22a.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 56, fig. 38.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 1868 $\frac{8220}{7}$ HYPOTYPE Beecher & Clarke. New York state museum
memoir 1. 1889. pl. 8 (series of 20 growth stages).
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

ROEMERELLA Hall & Clarke

Roemerella grandis Vanuxem (sp.)

- 1869 $\frac{8230}{1}$ TYPE *Orbicula grandis* Vanuxem. Geology of New
York; report on the 3d district. 1842. p. 152, fig. 4.
Discina grandis Hall. Paleontology of New
York. 1867. v. 4, pl. 1, fig. 18b.
Roemerella grandis Hall & Clarke. Paleontology
of New York. 1892. v. 8, pt 1, pl. 4E, fig. 30.
Hamilton beds Cazenovia N. Y.
L. Vanuxem coll.

ROMINGERINA Hall & Clarke

Romingerina julia A. Winchell (sp.)

- 1870 $\frac{8240}{1}$ HYPOTYPE *Centronella julia* A. Winchell. Pro-
ceedings of the Academy of natural sciences of Phila-
delphia. 1862. p. 405.
Romingerina julia Hall & Clarke. Paleontology
of New York. 1894. v. 8, pt 2, pl. 79, fig. 28.
Marshall group Pointe aux Barques Mich.

SCENIDIUM Hall

Scenidium halli Safford

- 1871 $\frac{8250}{1}$ HYPOTYPE *Skenidium halli* Safford. Geology of Tennessee. 1869. p. 287.

Scenidium halli Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 33.

Trenton limestone Nashville Tenn.

James M. Safford, donor

- 1872 $\frac{8250}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 34.

Trenton limestone Nashville Tenn.

James M. Safford, donor

- 1873 $\frac{8250}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 35.

Trenton limestone Nashville Tenn.

James M. Safford, donor

- 1874 $\frac{8250}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 36.

Trenton limestone Nashville Tenn.

James M. Safford, donor

SCHIZAMBON Walcott

Schizambon (?) canadensis (Ami) Hall & Clarke

- 1875 $\frac{8260}{1}$ HYPOPLASTOTYPE *Schizambon (?) canadensis* (Ami) Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 32.

Utica shale Near Gloucester Ont.

Schizambon typicalis Walcott

- 1876 $\frac{8261}{1}$ HYPOPLASTOTYPE *Schizambon typicalis* Walcott. United States geological survey monograph 8. 1884. p. 70.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 28.

Pogonip group Eureka district, Nev.

- 1877 $\frac{8261}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 29.

Pogonip group Eureka district, Nev.

- 1878 $\frac{8261}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 30.

Pogonip group Eureka district, Nev.

SCHIZOCRANIA Hall & Whitfield

Schizocrania filosa Hall

- 1879 $\frac{8270}{1}$ HYPOPLASTOTYPE *Orbicula? filosa* Hall. Paleontology of New York. 1847. 1: 99.

Schizocrania filosa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4G, fig. 26.

Cincinnatian

Cincinnati O.

- 1880 $\frac{8270}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4G, fig. 30.

Trenton limestone

Trenton Falls N. Y.

SCHIZOPHORIA King

Schizophoria iowensis Hall

- 1881 $\frac{8280}{1}$ HYPOTYPE *Orthis iowensis* Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 488.

Schizophoria iowensis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 6A, fig. 29.

Middle Devonian

Hackberry Grove, Ia.

Schizophoria multistriata Hall

- 1882 $\frac{8281}{1}$ HYPOTYPE *Orthis multistriata* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 45.

Hall. Paleontology of New York. 1859. v. 3, pl. 15, fig. 2g-2i.

Helderbergian

Schoharie N. Y.

Schizophoria tioga Hall

- 1883 $\frac{8282}{1}$ HYPOTYPE *Orthis interlineata* Hall. Geology of New York; report on the 4th district. 1843. p. 267.

Orthis tioga Hall. Paleontology of New York. 1867. v. 4, pl. 8, fig. 23.

Chemung beds Between Napoli and Conewango N. Y.

C. Van Deloo, coll. 1863

SCHIZOTRETA Kutorga

Schizotreta papilliformis Ruedemann

- 1884 $\frac{8290}{1}$ TYPE *Schizotreta papilliformis* Ruedemann. New York state museum bulletin 42. 1901. p. 570, pl. 1, fig. 3, 4.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

- 1885 $\frac{8290}{2}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 5.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

On slab with *Leptobolus walcotti*. Bul. 42, pl. 1, fig. 10.

SELENELLA Hall & Clarke

Selenella gracilis Hall & Clarke

- 1886 $\frac{8300}{1}$ TYPE *Selenella gracilis* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 270, fig. 185, 186.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. p. 371, fig. 2, 3.

Onondaga limestone

Ontario Can.

SEMINULA McCoy

Seminula rogersi Hall & Clarke

- 1887 $\frac{8310}{1}$ TYPE *Seminula rogersi* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 83, pl. 47, fig. 1, 4.

Hall & Clarke. 14th annual report of the New York state geologist. 1897. pl. 9, fig. 10, 13.

Pendleton sandstone (=Schoharie grit) Pendleton Ind.

- 1888 $\frac{8310}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 2, 3.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 11, 12.

Pendleton sandstone (=Schoharie grit) Pendleton Ind.

Seminula subquadrata Hall

- 1889 $\frac{8311}{1}$ HYPOTYPE *Athyris subquadrata* Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 703.

Seminula subquadrata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 16.

St Louis limestone

Pella Ia.

Seminula subtilita Hall

- 1890 $\frac{8312}{1}$ HYPOTYPE *Terebratula subtilita* Hall. Stansbury's expedition to the Great Salt lake. 1852. p. 409.

Seminula subtilita Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 21.

Upper Carbonic

Chariton county, Mo.

- 1891 $\frac{8312}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 47, fig. 25.
Coal measures Winterset Ia.
- 1892 $\frac{8312}{3}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 47, fig. 31.
Coal measures Winterset Ia.
- 1893 $\frac{8312}{4}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 86, fig. 58.
Coal measures Winterset Ia.
- 1894 $\frac{8312}{5}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 86, fig. 59.
Coal measures Winterset Ia.
- 1895 $\frac{8312}{6}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 95, fig. 66, 67.
Coal measures Winterset Ia.
S. Calvin. donor

Seminula trinuclea Hall

- 1896 $\frac{8313}{1}$ **HYPOTYPE** Terebratula trinucleus Hall.
Transactions of the Albany institute. 1858. 4:7.
Seminula trinuclea Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 94, fig. 65.
St Louis limestone Spergen hill, Ind.

SIEBERELLA Oehlert**Sieberella galeata** Dalman (sp.)

- 1897 $\frac{8320}{1}$ **HYPOTYPE** Atrypa galeata Dalman. Kongl. Svenska Vet. Akad. Handl. 1828. p. 46.
Pentamerus galeatus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 105, fig. 2.
Helderbergian Schoharie N. Y.
- 1898 $\frac{8320}{2}$ **HYPOTYPE** Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 105, fig. 3.
Helderbergian Schoharie N. Y.
- 1899 $\frac{8320}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1859. v. 3, pl. 47, fig. 1k-1m.
Helderbergian Schoharie N. Y.
Siphonotreta scotica see Schizambon (?) fissus

SPIRIFER Sowerby

Spirifer acuminatus Conrad (sp.)

- 1900 $\frac{8330}{1}$ HYPOTYPE *Delthyris acuminata* Conrad. 3d annual report of the New York geological survey. 1839. p. 65.

Spirifera acuminata Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 24.

Hamilton shales

Central New York

Spirifer angustus Hall

- 1901 $\frac{8331}{1}$ HYPOTYPE *Spirifera angusta* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 164.

Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 23, 24.

Hamilton shales

York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1902 $\frac{8331}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 25-27.

Hamilton shales

Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

Spirifer arenosus Conrad (sp.)

- 1903 $\frac{8332}{1}$ TYPE *Delthyris arenosa* Conrad. 3d annual report of the New York geological survey. 1839. p. 65.

Hall. Geology of New York; report on the 4th district. 1843. p. 148, fig. 1.

Delthyris arenaria Mather. Geology of New York; report on the 1st district. 1843. p. 342, fig. 1.

Spirifer arenosus Hall. Paleontology of New York. 1859. v. 3, pl. 98, fig. 3.

Oriskanian

Otsego county, N. Y.

- 1904 $\frac{8332}{2}$ HYPOTYPE *Spirifera unica* Hall. Paleontology of New York. 1867. v. 4, pl. 30, fig. 21.

Hall. 2d annual report of the New York state geologist. 1883. pl. 55, fig. 8.

Spirifer unicus (= *Spirifer arenosus*) Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 30, fig. 8.

Onondaga limestone

Clarence N. Y.

C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

- 1905 $\frac{8332}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 29, fig. 1.
Oriskanian Cayuga Ont.
C. D. Walcott, coll. 1878
- 1906 $\frac{8332}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 29, fig. 3.
Oriskanian Cayuga Ont.
C. D. Walcott, coll. 1878
- Spirifer arrectus* see *Spirifer murchisoni*
- Spirifer asper* Hall**
- 1907 $\frac{8333}{1}$ HYPOTYPE *Spirifer aspera* Hall. Geological survey
of Iowa. 1858. v. 1, pt 2, p. 508.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 25, fig. 25.
Hamilton shales Centerfield N. Y.
J. M. Clarke purchase
- Spirifer audaculus* Conrad (sp.)**
- 1908 $\frac{8334}{1}$ HYPOTYPE *Delthyris audacula* Conrad. Journal
of the Academy of natural sciences of Philadelphia. 1839.
8: 262.
Spirifera medialis Hall. Paleontology of New
York. 1867. v. 4, pl. 38, fig. 2, 3.
Hall. 2d annual report of the New York state geologist.
1883. pl. 54, fig. 1.
Spirifer audaculus Hall & Clarke. Paleontology
of New York. 1894. v. 8, pt 2, pl. 24, fig. 1.
Hamilton shales York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1909 $\frac{8334}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 38, fig. 4-6.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1910 $\frac{8334}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 38, fig. 7, 8.
Hamilton shales West Bloomfield N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1911 $\frac{8334}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 38, fig. 12, 13.
Hamilton shales Bethany, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 1912 $\frac{8334}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 38, fig. 21.
Hamilton shales Eighteen Mile creek, N. Y.
C. A. White, coll. 1860
- 1913 $\frac{8334}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 38A, fig. 17.
Hall. 2d annual report of the New York state geologist.
1883. pl. 54, fig. 2.
Spirifer audaculus Hall & Clarke. Paleon-
tology of New York. 1894. v. 8, pt 2, pl. 24, fig. 2.
Hamilton shales Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860
- 1914 $\frac{8334}{7}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 38*, fig. 1.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1915 $\frac{8334}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 38*, fig. 2-4.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1916 $\frac{8334}{9}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 38*, fig. 5, 6.
Hamilton shales Eighteen Mile creek, N. Y.
C. Van Deloo, coll. 1864
- 1917 $\frac{8334}{10}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 38*, fig. 8-11.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1918 $\frac{8334}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 29, fig. 5.
Hamilton shales Canandaigua lake, N. Y.
- Spirifer audaculus* var. Hall**
- 1919 $\frac{8334a}{1}$ HYPOTYPE *Spirifer medialis* var. Hall. Paleontology
of New York. 1867. v. 4, pl. 38*, fig. 19.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 1920 $\frac{8334a}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 38*, fig. 20.
Hamilton shales Eighteen Mile creek, N. Y.
C. A. White, coll. 1860

Spirifer audaculus *var. eatoni* Hall

- 1921 $\frac{8335}{1}$ TYPE *Spirifer medialis* *var. eatoni* Hall. Paleontology of New York. 1867. 4:229, pl. 38*, fig. 12-15, Hamilton shales York N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1922 $\frac{8335}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 17.

Hamilton shales

Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Spirifer bicostatus Vanuxem *var. petilus* Hall

- 1923 $\frac{8336}{1}$ HYPOTYPE *Spirifera bicostata?* *var. petila* Hall, Descriptions of new species of fossils from Waldron, Indiana. 1879. p. 15.

Spirifer bicostatus *var. petilus* Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6 fig. 1, 1a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Spirifer concinnus Hall

- 1924 $\frac{8337}{1}$ TYPE *Spirifera concinna* Hall. 10th annual report of the New York state cabinet of natural history, 1857. p. 60, 61, fig. 1-3.

Helderbergian

Schoharie N. Y.

Spirifer crispus Hisinger (sp.)

- 1925 $\frac{8338}{1}$ HYPOTYPE *Terebratula crispa* Hisinger. Kongl. Svenska Vet. Akad. Handl. 1826. explanation of pl. 7.

Spirifer crispus Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 9a-9c.

Coralline (Cobleskill) limestone

Schoharie N. Y.

Spirifer crispus *var. simplex* Hall

- 1926 $\frac{8339}{1}$ HYPOTYPE *Spirifera crispa* *var. simplex* Hall, 28th annual report of the New York state museum. 1879. p. 157.

Beecher & Clarke. New York state museum memoir 1, 1889. pl. 6, fig. 4, 4a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1927 $\frac{8339}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 5, 5a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 1928 $\frac{8339}{3}$ **HYPOTYPE** Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 6, 6a.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Spirifer disjunctus Sowerby

- 1929 $\frac{8340}{1}$ **HYPOTYPE** *Spirifer disjunctus* Sowerby. Transactions of the Geological society. 2d ser. 1840. 5:704.

Spirifera disjuncta Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 1.

Chemung beds Conewango, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1930 $\frac{8340}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 2.

Chemung beds East Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1931 $\frac{8340}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 3.

Chemung beds

Cattaraugus county, N. Y.

- 1932 $\frac{8340}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 4.

Chemung beds

Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1933 $\frac{8340}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 5.

Chemung beds

Olean, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 1934 $\frac{8340}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 7.

Chemung beds

Little Genesee, Allegany co. N. Y.

C. Van Deloo, coll. 1863

- 1935 $\frac{8340}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 8.

Chemung beds

Randolph N. Y.

C. Van Deloo, coll. 1863

- 1936 $\frac{8340}{8}$ **HYPOTYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 9.

Chemung beds

Olean N. Y.

C. Van Deloo, coll. 1863

- 1937 $\frac{8340}{9}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 41, fig. 10.
Chemung beds East Randolph N. Y.
C. Van Deloo, coll. 1863
- 1938 $\frac{8340}{10}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 41, fig. 11.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863
- 1939 $\frac{8340}{11}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 41, fig. 12.
Hall. 2d annual report of the New York state geologist. 1883. pl. 55, fig. 16.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 30, fig. 16.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863
- 1940 $\frac{8340}{12}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 41, fig. 13.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863
- 1941 $\frac{8340}{13}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 41, fig. 14.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863
- 1942 $\frac{8340}{14}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 41, fig. 15.
Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 1943 $\frac{8340}{15}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 41, fig. 16.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863
- 1944 $\frac{8340}{16}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 1.
Chemung beds East Randolph N. Y.
C. Van Deloo, coll. 1863
- 1945 $\frac{8340}{17}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 2.
Chemung beds Leon, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

- 1946 $\frac{8340}{18}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 3.
Hall. 2d annual report of the New York state geologist. 1883. pl. 55, fig. 17.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 30, fig. 17.
Chemung beds Western New York
- 1947 $\frac{8340}{19}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 4.
Chemung beds Randolph N. Y.
C. Van Deloo, coll. 1863
- 1948 $\frac{8340}{20}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 5.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1949 $\frac{8340}{21}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 6.
Chemung beds Conewango N. Y.
C. Van Deloo, coll. 1863
- 1950 $\frac{8340}{22}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 7.
Chemung beds Conewango N. Y.
C. Van Deloo, coll. 1863
- 1951 $\frac{8340}{23}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 8.
Chemung beds Randolph N. Y.
C. Van Deloo, coll. 1863
- 1952 $\frac{8340}{24}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 9.
Chemung beds New Albion N. Y.
C. Van Deloo, coll. 1863
- 1953 $\frac{8340}{25}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 10.
Chemung beds Cherry Creek, Cattaraugus co, N. Y.
C. Van Deloo coll. 1863
- 1954 $\frac{8340}{26}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 11.
Chemung beds New Albion N. Y.
- 1955 $\frac{8340}{27}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 12.
Chemung beds Cherry Creek N. Y.
C. Van Deloo, coll. 1863

- 1956 $\frac{8340}{28}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 13.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 1957 $\frac{8340}{29}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 14.
Chemung beds Allegany station, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 1958 $\frac{8340}{30}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 15, 16.
Chemung beds Salamanca N. Y.
C. Van Deloo, coll. 1863
- 1959 $\frac{8340}{31}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 17.
Chemung beds Randolph N. Y.
C. Van Deloo, coll. 1863
- 1960 $\frac{8340}{32}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 42, fig. 18.
Chemung beds Horse Corners, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 1961 $\frac{8340}{33}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 42, fig. 19.
Hall. 2d annual report of the New York state geologist.
1883. pl. 55, fig. 14.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 30, fig. 14.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

Spirifer duodenarius Hall

- 1962 $\frac{8341}{1}$ HYPOTYPE Delthyris duodenarius Hall. Geology of New York; report on the 4th district. 1843.
p. 172.
Spirifera duodenaria Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 13.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862
- 1963 $\frac{8341}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 27, fig. 14.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

- 1964 $\frac{8341}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 27, fig. 15.
Hall. 2d annual report of the New York state geologist. 1883. pl. 58, fig. 12.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 33, fig. 12.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862
- 1965 $\frac{8341}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 27, fig. 16.
Hall. 2d annual report of the New York state geologist. 1883. pl. 58, fig. 11.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 33, fig. 11.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

Spirifer eriensis Grabau

- 1966 $\frac{8342}{1}$ TYPE *Spirifer eriensis* Grabau. Geological society of America bulletin. 1900. 11:366, pl. 21, fig. 2a.
Manlius limestone Williamsville. Erie co. N. Y.
A. W. Grabau, coll.
- 1967 $\frac{8342}{2}$ TYPE Grabau. Geological society of America bulletin. 1900. v. 11, pl. 21, fig. 2b.
Manlius limestone Williamsville, Erie co. N. Y.
A. W. Grabau, coll.

Spirifer fimbriatus Conrad (sp.)

- 1968 $\frac{8343}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Delthyris fimbriatus* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:263.
Spirifera fimbriata Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 2.
Schoharie grit Clarksville, Albany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861
- 1969 $\frac{8343}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 33, fig. 3.
Hall. 2d annual report of the New York state geologist. 1883. pl. 61, fig. 17.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 36, fig. 17.
Schoharie grit Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

- 1970 $\frac{8343}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 33, fig. 16-19.
Hamilton shales York N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1971 $\frac{8343}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 38, fig. 9.
Onondaga limestone Leroy N. Y.

Spirifer granulosus Conrad (sp.)

- 1972 $\frac{8344}{1}$ HYPOTYPE Delthyris granulosa Conrad. 3d
annual report of the New York geological survey. 1839.
p. 65.

Spirifer granulosus Hall & Clarke. Paleon-
tology of New York. 1894. v. 8, pt 2, pl. 29, fig. 9, 10.
Hamilton beds Petosky Mich.

Spirifer gregarius (Clapp) Hall

- 1973 $\frac{8345}{1}$ HYPOTYPE *Spirifer gregaria* (Clapp ms.) Hall.
10th annual report of the New York state cabinet of natural
history. 1857. p. 127.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 29, fig. 7.

Onondaga limestone Falls of the Ohio, Ky.

Spirifer hemiplicatus *see* *Enteles hemiplicata*

Spirifer hungerfordi Hall

- 1974 $\frac{8346}{1}$ TYPE *Spirifer hungerfordi* Hall. Geological sur-
vey of Iowa. 1858. v. 1, pt 2, pl. 4, fig. 1b, 1d, 1e.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 37, fig. 29.

Upper Devonian Rockford Ia.

Spirifer laevis Hall

- 1975 $\frac{8347}{1}$ HYPOTYPE *Delthyris laevis* Hall. Geology of New
York; report on the 4th district. 1843. p. 245.

Spirifer laevis Hall. Paleontology of New York.
1867. v. 4, pl. 39, fig. 7.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 38, fig. 12.

Ithaca beds Ithaca N. Y.

- 1976 $\frac{8347}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 84, fig. 29.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Spirifer lamellosus see *Athyris lamellosa*

***Spirifer ligus* Owen**

- 1977 $\frac{8348}{1}$ **HYPOTYPE** *Spirifer ligus* Owen. Geological survey of Iowa, Wisconsin and Minnesota. 1852. p. 585.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 13.

Middle Devonic

Independence Ia.

R. P. Whitfield, coll. 1866

***Spirifer macbridii* Calvin**

- 1978 $\frac{8349}{1}$ **HYPOTYPE** *Spirifer macbridei* Calvin American journal of science. 1883. 3d ser. 25:433.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 13.

Upper Devonic

Rockford Ia.

R. P. Whitfield, coll. 1866

***Spirifer macer* Hall**

- 1979 $\frac{8350}{1}$ **TYPE** *Spirifera macra* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 134.

Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 17.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 1980 $\frac{8350}{2}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 18.

Hall. 2d annual report of the New York state geologist. 1883. pl. 59, fig. 1.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 1.

Schoharie grit

Knox N. Y.

C. Van Deloo, coll. 1862

- 1981 $\frac{8350}{3}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 22.

Schoharie grit

Knox N. Y.

C. Van Deloo, coll. 1862

- 1982 $\frac{8350}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 27, fig. 23.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862
- 1983 $\frac{8350}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 27, fig. 24.
Hall. 2d annual report of the New York state geologist.
1883. pl. 59, fig. 2.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 34, fig. 2.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862
- 1984 $\frac{8350}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 27, fig. 25.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

Spirifer macronotus Hall

- 1985 $\frac{8351}{1}$ TYPE *Delthyris macronota* Hall. Geology of
New York; report on the 4th district. 1843. p. 206.
Spirifera macronota Hall. Paleontology of
New York. 1867. 4:231, pl. 38A, fig. 4-6.
Hamilton shales Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864
- 1986 $\frac{8351}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 38A, fig. 13.
Hall. 2d annual report of the New York state geologist.
1883. pl. 54, fig. 18.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 24, fig. 18.
Hamilton shales Canandaigua lake, N. Y.
- 1987 $\frac{8351}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4.
pl. 38A, fig. 18.
Hamilton shales Eighteen Mile creek, N. Y.
C. Van Deloo, coll. 1864

Spirifer macropleura Conrad (sp.)

- 1988 $\frac{8352}{1}$ HPOTYPE *Delthyris macropleura* Conrad. 4th
annual report of the New York state geological survey.
1840. p. 207.
Spirifer macropleurus Hall. Paleontology of
New York. 1859. v. 3, pl. 27, fig. 1k.
Helderbergian Schoharie county, N. Y.

Spirifer macrothyris Hall

- 1989 $\frac{8353}{1}$ TYPE *Spirifer macrothyris* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 132.

Hall. Paleontology of New York. 1867. v. 4, pl. 30, fig. 16.

Hall. 2d annual report of the New York state geologist. 1883. pl. 53, fig. 16.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 23, fig. 16.

Onondaga limestone Williamsville, Erie co. N. Y.

Spirifer marcyi Hall

- 1990 $\frac{8354}{1}$ HYPOTYPE *Spirifer marcyi* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 158.

Hall. Paleontology of New York. 1867. v. 4, pl. 37, fig. 13, 16.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1991 $\frac{8354}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 37, fig. 15.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 1992 $\frac{8354}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 37, fig. 20.

Hall. 2d annual report of the New York state geologist. 1883. pl. 52, fig. 13.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 22, fig. 13.

Hamilton shales Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Spirifer medialis var. *see* *Spirifer audaculus* var.

Spirifer medialis var. *eatonii* *see* *Spirifer audaculus* var. *eatonii*

Spirifer mesacostalis Hall

- 1993 $\frac{8355}{1}$ HYPOTYPE *Delthyris mesacostalis* Hall. Geology of New York; report on the 4th district. 1843. p. 269.

Spirifer mesacostalis Hall. Paleontology of New York. 1867. v. 4, pl. 40, fig. 11.

Chemung beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Spirifer mesacostalis? var. *acuminata* see
Spirifer mucronatus var. *posterus*

***Spirifer mucronatus* Conrad (sp.)**

1994 $\frac{8356}{1}$ HYPOTYPE *Delthyris mucronatus* Conrad. 5th annual report of the New York state geological survey. 1841. p. 54.

Spirifera mucronata Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 1.

Hamilton shales Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

1995 $\frac{8356}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 2.

Hamilton shales Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1996 $\frac{8356}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 3.

Hall. 2d annual report of the New York state geologist. 1883. pl. 59, fig. 15.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 15.

Marcellus shale Alden, Erie co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1997 $\frac{8356}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 4.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 16.

Hamilton shales Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

1998 $\frac{8356}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 8.

Hamilton shales Tichenor's gully,
Canandaigua lake, N. Y.
J. M. Clarke purchase

1999 $\frac{8356}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 11-14.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 34, fig. 13.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

2000 $\frac{8356}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 34, fig. 16.

Hamilton shales Eighteen Mile creek, N. Y.
C. A. White, coll. 1860

2001 $\frac{8356}{8}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 34, fig. 17.

Hamilton shales Schoharie county, N. Y.
W. M. Gabb, coll. 1857

2002 $\frac{8356}{9}$ **HYPOTYPE** Hall. 2d annual report of the New York state
geologist. 1883. pl. 59, fig. 22.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 24, fig. 22.

Hamilton shales Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

Spirifer mucronatus Conrad *var. posterus* Hall & Clarke

2003 $\frac{8357}{1}$ **TYPE: PLASTOTYPE** *Spirifer mucronatus* Conrad *var.*
posterus Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, p. 361, pl. 34, fig. 27.

Hall & Clarke. 14th annual report of the New York
state geologist. 1895. pl. 7, fig. 22.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2004 $\frac{8357}{2}$ **TYPE** *Spirifer mesacostalis?* *var. acuminata*
Hall. 2d annual report of the New York state geologist.
1883. pl. 59, fig. 28.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 34, fig. 28.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2005 $\frac{8357}{3}$ **TYPE** Hall. 2d annual report of the New York state
geologist. 1883. pl. 59, fig. 29.

Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 34, fig. 29.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Spirifer multistriatus *see* *Trematospira multi-*
striata

Spirifer murchisoni Castelnau

- 2006 $\frac{8358}{1}$ **HYPOTYPE** *Spirifer murchisoni* Castelnau. Essai sur le système Silurien de l'Amerique septentrionale. 1843. p. 41.

Spirifer arrectus Hall. Paleontology of New York. 1859. 3:422.

Spirifer murchisoni Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 26.

Oriskanian Becraft mountain, Hudson N. Y.

- 2007 $\frac{8358}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 27.

Oriskanian Becraft mountain, Hudson N. Y.

- 2008 $\frac{8358}{3}$ **HYPOTYPE** Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 28.

Oriskanian Becraft mountain, Hudson N. Y.

- 2009 $\frac{8358}{4}$ **HYPOTYPE: HYPOPLASTOTYPE** Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 29.

Oriskanian Becraft mountain, Hudson N. Y.

- 2010 $\frac{8358}{5}$ **HYPOTYPE: HYPOPLASTOTYPE** Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 30.

Oriskanian Becraft mountain, Hudson N. Y.

Spirifer? *perforatus* *see* *Trematospira perforata*

Spirifer plicatellus var. *radiatus* *see* *Spirifer radiatus*

Spirifer praematurus Hall

- 2011 $\frac{8359}{1}$ **TYPE** *Spirifera praematura* Hall. Proceedings of the American philosophical society. 1866. 10:246.

Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 31.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

- 2012 $\frac{8359}{2}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 33.

Hall. 2d annual report of the New York state geologist. 1883. pl. 61, fig. 23.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 36, fig. 23.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

- 2013 $\frac{8359}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 34.
Hall. 2d annual report of the New York state geologist. 1882. pl. 61, fig. 24.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 36, fig. 24.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 2014 $\frac{8359}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 35.
Hall. 2d annual report of the New York state geologist. 1883. pl. 61, fig. 25.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 36, fig. 25.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- Spirifer pyxidatus* see *Metaplasia pyxidata*
- Spirifer radiatus*** Sowerby
- 2015 $\frac{8360}{1}$ HYPOTYPE *Spirifer plicatellus* var. *radiatus* Sowerby. Mineral conchology. 1825. 5:493.
Spirifer radiatus Hall. Paleontology of New York. 1852. v. 2, pl. 22, fig. 2a, 2b.
Clinton beds Lockport N. Y.
- 2016 $\frac{8360}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 9.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 2017 $\frac{8360}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 10, 10a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- Spirifer raricosta*** Conrad (sp.)
- 2018 $\frac{8361}{1}$ HYPOTYPE *Delthyris raricosta* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:262.
Spirifera raricosta Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 30.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862

- 2019 $\frac{8361}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 27, fig. 31.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 2020 $\frac{8361}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 27, fig. 32.
Hall. 2d annual report of the New York state geologist.
1883. pl. 60, fig. 17.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 35, fig. 17.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862
- 2021 $\frac{8361}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 27, fig. 33.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862
- 2022 $\frac{8361}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 30, fig. 3-6.
Onondaga limestone Williamsville, Erie co. N. Y.
- 2023 $\frac{8361}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 30, fig. 8.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860
- 2024 $\frac{8361}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 30, fig. 9.
Hall. 2d annual report of the New York state geologist.
1883. pl. 60, fig. 16.
Hall & Clarke. Paleontology of New York. 1894.
v. 8, pt 2, pl. 35, fig. 16.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860
- Spirifer saffordi** Hall
- 2025 $\frac{8362}{1}$ **HYPOTYPE: HYPOPLASTOTYPE** *Spirifer saffordi* Hall.
Paleontology of New York. 1859. 3:203.
Clarke. New York state museum memoir 3. 1900.
pl. 6, fig. 23.
Oriskanian Becraft mountain, Hudson N. Y.
- 2026 $\frac{8362}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** Clarke. New York state
museum memoir 3. 1900. pl. 6, fig. 24.
Oriskanian Becraft mountain, Hudson N. Y.

- 2027 $\frac{8362}{3}$ **HYPOTYPE: HYPOPLASTOTYPE** Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 25.
Oriskanian Becraft mountain, Hudson N. Y.

Spirifer subumbonatus Hall

- 2028 $\frac{8364}{1}$ **HYPOTYPE** *Orthis subumbona* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 168.

Spirifer subumbona Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 14.

Hamilton shales Canandaigua lake, N. Y.

Spirifer textus see *Syringothyris texta*

Spirifer tullius Hall

- 2029 $\frac{8365}{1}$ **TYPE** *Spirifera tullia* Hall. Paleontology of New York. 1867. 4:218, pl. 35, fig. 1.

Spirifer tullius Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 37, fig. 7.

Hamilton shales Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

- 2030 $\frac{8365}{2}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 4.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 37, fig. 6.

Hamilton shales Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

- 2031 $\frac{8365}{3}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 5.

Hamilton shales Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

- 2032 $\frac{8365}{4}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 7.

Hamilton shales Tully, Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

- 2033 $\frac{8365}{5}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 8.

Hamilton shales Apulia, Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

- 2034 $\frac{8365}{6}$ **TYPE** Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 9.

Hamilton shales Tully N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

Spirifer ventricosus see *Nucleospira concinna*

Spirifera alta see *Cyrtia alta*

Spirifera cyrtinaeformis *see* *Cyrtia cyrtini-formis*

Spirifera medialis *see* *Spirifer audaculus*

Spirifera medialis var. *eatonii* *see* *Spirifer audaculus* var. *eatonii*

Spirifera unica *see* *Spirifer arenosus*

Spirifera? *waldronensis* *see* *Mimulus waldronensis*

STENOSCHISMA Conrad

Stenoschisma formosa Hall

2035 $\frac{8380}{1}$ HYPOTYPE *Rhynchonella formosa* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 76.

Stenoschisma formosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 56, fig. 45.

Helderbergian

The Helderberg, N. Y.

Streptis waldronensis *see* *Mimulus waldronensis*

Streptorhynchus chemungensis *see* *Orthothes* *chemungensis*

Streptorhynchus chemungensis var. *arctostriata* *see* *Orthothes* *chemungensis* var. *arctostriatus*

Streptorhynchus chemungensis var. *pandora* *see* *Orthothes* *pandora*

Streptorhynchus chemungensis var. *perversus* *see* *Orthothes* *perversus*

Streptorhynchus hydraulicus *see* *Orthothes* *hydraulicus*

Streptorhynchus pandora *see* *Orthothes* *pandora*

Streptorhynchus subplanum *see* *Orthothes* *subplana*

Streptorhynchus woolworthana *see* *Orthothes* *woolworthanus*

STROPHALOSIA King

Strophalosia hystriacula Hall

2036 $\frac{8390}{1}$ TYPE *Productella hystriacula* Hall. Paleontology of New York. 1867. 4: 178, pl. 26, fig. 1.

Chemung beds

Leon, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 2037 $\frac{8390}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 26, fig. 2.
Chemung beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 2038 $\frac{8390}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 26, fig. 5.
Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 2039 $\frac{8390}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 26, fig. 7.
Hall. 2d annual report of the New York state geolo-
gist. 1883. pl. 48, fig. 29.
Strophalosia hystriacula Hall & Clarke.
Paleontology of New York. 1892. v. 8, pt 1, pl. 17,
fig. 29.
Chemung beds Near East Randolph,
Chautauqua co. N. Y.
C. Van Deloo, coll. 1863
- 2040 $\frac{8390}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 26, fig. 8.
Chemung beds Leon N. Y.
C. Van Deloo, coll. 1863
- 2041 $\frac{8390}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1892. v. 8, pt 1, pl. 15B, fig. 31.
Chemung beds Conewango N. Y.
C. Van Deloo, coll. 1863
- Strophalosia muricata** Hall
- 2042 $\frac{8391}{1}$ TYPE Chonetes muricatus Hall. Paleontology of
New York. 1867. 4: 143, pl. 22, fig. 29.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 2043 $\frac{8391}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4,
pl. 22, fig. 30.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863
- 2044 $\frac{8391}{3}$ TYPE: PLASTOTYPE Hall. Paleontology of New York.
1867. v. 4, pl. 22, fig. 33.
Hall. 2d annual report of the New York state geologist.
1883. pl. 47, fig. 30.

Strophalosia muricata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 30.
Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

- 2045 $\frac{8391}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 34.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 12.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 12.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

- 2046 $\frac{8391}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 38, 42.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

- 2047 $\frac{8391}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 39.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

- 2048 $\frac{8391}{7}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 40.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 38, 42.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

***Strophalosia radicans* A. Winchell (sp.)**

- 2049 $\frac{8392}{1}$ HYPOTYPE *Crania radicans* A. Winchell. Report on the lower peninsula of Michigan. 1866. p. 92.

Strophalosia radicans Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 29.

Hamilton beds Little Traverse bay, Mich.

C. Rominger, coll. 1888

***Strophalosia rockfordensis* Hall & Clarke**

- 2050 $\frac{8393}{1}$ TYPE *Strophalosia rockfordensis* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 353, pl. 17A, fig. 1, 2.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 7, fig. 9, 10.

Upper Devonian

Rockford Ia.

Strophalosia truncata Hall

- 2051 $\frac{8394}{1}$ TYPE *Productus truncatus* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 171.

Productella truncata Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 16.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 11.

Strophalosia truncata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 11.

Marcellus shales

Littleville N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2052 $\frac{8394}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 23.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 14.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 14.

Hamilton shales

Tully N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

STROPHEODONTA Hall**Stropheodonta alveata** Hall

- 2053 $\frac{8400}{1}$ TYPE *Strophodonta alveata* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 36.

Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 2.

Schoharie grit

Near Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 2054 $\frac{8400}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 3.

Schoharie grit

Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

Stropheodonta callosa Hall

- 2055 $\frac{8401}{1}$ TYPE: PLASTOTYPE *Strophodonta callosa* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 36.

Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 4.

Schoharie grit

Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

- 2056 $\frac{8401}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 6.
 Schoharie grit Near Clarksville N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1861
 On slab with type of *Pholidops areolata* Pal. N. Y.
 v. 4, pl. 3, fig. 5.
- 2057 $\frac{8401}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 7.
 Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 37.
 Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 37.
 Schoharie grit Near Clarksville N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1861
- 2058 $\frac{8401}{4}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 8.
 Schoharie grit Near Clarksville N. Y.
 C. Van Deloo, coll. 1862
- 2059 $\frac{8401}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 9, 10.
 Schoharie grit Knox, Albany co. N. Y.
 C. Van Deloo, coll. 1862
- 2060 $\frac{8401}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 20, fig. 9a, 9b.
 Schoharie grit Near Clarksville N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1861
- Stropheodonta canace** Hall & Whitfield
- 2061 $\frac{8402}{1}$ TYPE *Strophodonta canace* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 236, pl. 11, fig. 8-10.
 Upper Devonian Rockford Ia.
 R. P. Whitfield, coll. 1866
- Stropheodonta concava** Hall
- 2062 $\frac{8403}{1}$ HYPOTYPE *Strophomena (Strophodonta) concava* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 140.
Strophodonta concava Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 2.
 Hamilton shales York, Livingston co. N. Y.
 C. A. White and C. Van Deloo, coll. 1860

- 2063 $\frac{8403}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 15, fig. 4, 5.
Hall. 2d annual report of the New York state geologist. 1883. pl. 45, fig. 20, 21.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 14, fig. 20, 21.
Hamilton shales Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858.
- 2064 $\frac{8403}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 16, fig. 1a.
Hamilton shales Canandaigua lake, N. Y.
- 2065 $\frac{8403}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 16, fig. 1b, 1c.
Hall. 2d annual report of the New York state geologist. 1883. pl. 45, fig. 16, 17.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 14, fig. 16, 17.
Hamilton shales Canandaigua lake, N. Y.
- 2066 $\frac{8403}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 16, fig. 1d.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860.
- 2067 $\frac{8403}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 16, fig. 1f, 1g.
Hall. 2d annual report of the New York state geologist. 1883. pl. 45, fig. 19.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 14, fig. 19.
Hamilton shales Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860.
- Stropheodonta crebristriata** Conrad (sp.)
- 2068 $\frac{8404}{1}$ **HYPOTYPE: HYPOPLASTOTYPE** Strophomena crebristriata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:254.
Stropheodonta crebristriata Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 12.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862.

- 2069 $\frac{8404}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 11, fig. 18, 19.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862
- 2070 $\frac{8404}{3}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall. Paleontology of New
York. 1867. v. 4, pl. 11, fig. 23.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

Stropheodonta demissa Conrad (sp.)

- 2071 $\frac{8405}{1}$ **HYPOTYPE: HYPOPLASTOTYPE** *Strophomena* de-
missa Conrad. Journal of the Academy of natural
sciences of Philadelphia. 1839. 8:258.
Strophodonta demissa Hall. Paleontology of
New York. 1867. v. 4, pl. 11, fig. 14.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862
- 2072 $\frac{8405}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 11, fig. 15.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862
- 2073 $\frac{8405}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 11, fig. 16.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 2074 $\frac{8405}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 12, fig. 3-5.
Hall. 2d annual report of the New York state geologist.
1883. pl. 45, fig. 10.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 14, fig. 10.
Onondaga limestone Dry Lots, Herkimer co. N. Y.
C. A. White, coll. 1860
- 2075 $\frac{8405}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1867.
v. 4, pl. 17, fig. 2a.
Hamilton shales York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
On slab with type of *Leptostrophia perplana* Con-
rad. Pal. N. Y. v. 4, pl. 17, fig. 11.

- 2076 $\frac{8405}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 17, fig. 2c.
Hamilton shales Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860
- 2077 $\frac{8405}{7}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 17, fig. 2c.
Hamilton shales Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

Stropheodonta parva Hall

- 2078 $\frac{8406}{1}$ TYPE Strophodonta parva Hall. 16th annual report
of the New York state cabinet of natural history. 1863.
p. 37.
Hall. Paleontology of New York. 1867. v. 4, pl. 11,
fig. 5.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

Stropheodonta patersoni Hall

- 2079 $\frac{8407}{1}$ HYPOTYPE Strophomena (Strophodonta) pater-
soni Hall. 10th annual report of the New York state
cabinet of natural history. 1857. p. 114.
Strophodonta patersoni Hall. Paleontology
of New York. 1867. v. 4, pl. 13, fig. 3.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860
- 2080 $\frac{8407}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867.
v. 4, pl. 15, fig. 6.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860

Stropheodonta vascularia Hall

- 2081 $\frac{8408}{1}$ TYPE: PLASTOTYPE Strophodonta vascularia
Hall. Paleontology of New York. 1859. 3:412, pl. 95,
fig. 10.
Oriskanian The Helderberg, N. Y.
Strophodonta ampla *see* Strophonella ampla
Strophodonta caelata *see* Strophonella caelata
Strophodonta cayuta *see* Douvillina cayuta
Strophodonta inaequiradiata *see* Douvillina
inaequiradiata
Strophodonta inaequistriata *see* Douvillina
inaequistriata

Strophodonta junia *see* *Leptostrophia junia*

Strophodonta lincklaeni *see* *Leptostrophia lincklaeni*

Strophodonta magnifica *see* *Leptostrophia magnifica*

Strophodonta magniventra *see* *Leptostrophia magniventra*

Strophodonta nacrea *see* *Pholidostrophia nacrea*

Strophodonta perplana *see* *Leptostrophia perplana*

Strophodonta perplana var. *nervosa* *see* *Leptostrophia perplana* var. *nervosa*

Strophodonta profunda *see* *Brachyprion profundum*

Strophodonta punctulifera *see* *Strophonella punctulifera*

Strophodonta radiata *see* *Strophonella radiata*

Strophodonta reversa *see* *Strophonella reversa*

STROPHOMENA Rafinesque (de Blainville)

Strophomena (*Strophodonta*) *ampla* *see* *Strophonella ampla*

Strophomena arctostriata *see* *Orthothetes chemungensis* var. *arctostriatus*

Strophomena (?) bipartita Hall

2082 $\frac{8420}{1}$ TYPE *Leptaena bipartita* Hall. Paleontology of New York. 1852. 2:326, pl. 74, fig. 3a.

Coralline (Cobleskill) limestone Schoharie N. Y.

2083 $\frac{8420}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 4a, 4b.

Coralline (Cobleskill) limestone Schoharie N. Y.

2084 $\frac{8420}{3}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 5a.

Coralline (Cobleskill) limestone Schoharie N. Y.

Strophomena carinata *see* *Chonetes carinatus*

Strophomena carinata *see* *Tropidoleptus carinatus*

Strophomena chemungensis *see* *Orthothetes chemungensis*

Strophomena (*Strophodonta*) *concava* *see* *Stropheodonta concava*

***Strophomena conradi* Hall & Clarke**

2085 $\frac{8421}{1}$ TYPE *Strophomena conradi* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 344, pl. 20, fig. 32, 32a.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 4, fig. 29, 30.

Trenton limestone Trenton Falls, Oneida co. N. Y.

Strophomena crebristriata see *Stropheodonta crebristriata*

Strophomena demissa see *Stropheodonta demissa*

Strophomena (*Strophodonta*) *inaequiradiata* see *Douvillina inaequiradiata*

Strophomena inaequistriata see *Douvillina inaequistriata*

Strophomena lachrymosa see *Productella lachrymosa*

Strophomena mucronata see *Chonetes mucronatus*

Strophomena mucronata see *Leptostrophia mucronata*

Strophomena (*Strophodonta*) *nacrea* see *Pholidostrophia nacrea*

Strophomena nervosa see *Leptostrophia perplana* var. *nervosa*

Strophomena (*Strophodonta*) *patersoni* see *Stropheodonta patersoni*

Strophomena perplana see *Leptostrophia perplana*

Strophomena radiata see *Strophonella radiata*

Strophomena rhomboidalis see *Leptaena rhomboidalis*

Strophomena rugosa see *Leptaena rhomboidalis*

Strophomena striata see *Strophonella* (*Amphistrophia*) *striata*

Strophomena subplana see *Orthotheses subplanus*

Strophomena textilis see *Leptostrophia junia*

Strophomena woolworthana see *Orthotheses woolworthanus*

STROPHONELLA Hall

Strophonella ampla Hall

- 2086 $\frac{8430}{1}$ HYPOTYPE *Strophomena* (*Strophodonta*) *ampla* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 111.

Hall. Paleontology of New York. 1867. v. 4, pl. 14, fig. 1e.

Onondaga limestone Western New York

- 2087 $\frac{8430}{2}$ HYPOTYPE *Strophodonta ampla* Hall. Paleontology of New York. 1867. v. 4, pl. 14, fig. 1h.

Strophonella ampla Hall. 2d annual report of the New York state geologist. 1883. pl. 43, fig. 14.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 12, fig. 14.

Onondaga limestone Onondaga Valley N. Y.
C. A. White, coll. 1860

Strophonella caelata Hall

- 2088 $\frac{8431}{1}$ TYPE *Strophodonta caelata* Hall. Paleontology of New York. 1867. 4:112, pl. 19, fig. 7.

Chemung beds Waverly, Tioga co. N. Y.

Strophonella punctulifera Conrad (sp.)

- 2089 $\frac{8432}{1}$ HYPOTYPE *Leptaena punctulifera* Conrad. 2d report of the New York state geological survey. 1838. p. 112.

Strophodonta punctulifera Hall. Paleontology of New York. 1859. v. 3, pl. 21, fig. 4c.

Helderbergian The Helderberg, N. Y.

Strophonella radiata Vanuxem (sp.)

- 2090 $\frac{8433}{1}$ HYPOTYPE *Strophomena radiata* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 122.

Strophodonta radiata Hall. Paleontology of New York. 1859. v. 3, pl. 21, fig. 8a, 8b.

Helderbergian Herkimer county, N. Y.

- 2091 $\frac{8433}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 21, fig. 9, 9b.

Helderbergian The Helderberg, N. Y.

***Strophonella reversa* Hall**

- 2092 $\frac{8434}{1}$ TYPE *Strophodonta reversa* Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 494, pl. 3, fig. 4a-4c.
Upper Devonic Rockford Ia.
- 2093 $\frac{8434}{2}$ TYPE Hall. Geological survey of Iowa. 1858. v. 1, pt 2, pl. 3, fig. 4d.
Upper Devonic Rockford Ia.
- 2094 $\frac{8434}{3}$ HYPOTYPE *Strophonella?* (*Strophodonta*) *reversa* Hall. 2d annual report of the New York state geologist. 1883. pl. 43, fig. 18.
Strophonella reversa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 12, fig. 18.
Upper Devonic Rockford Ia.
- 2095 $\frac{8434}{4}$ HYPOTYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 43, fig. 19.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 12, fig. 19.
Upper Devonic Rockford Ia.
- Strophonella* (*Strophodonta*) *reversa*
see Strophonella reversa
Strophonella striata see Strophonella (*Amphistrophia*) *striata*

***Strophonella* (*Amphistrophia*) *striata* Hall**

- 2096 $\frac{8435}{1}$ HYPOTYPE *Strophomena striata* Hall. Geology of New York; report on the 4th district. 1843. p. 104.
Strophonella striata Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 1, 1a, 3.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 2097 $\frac{8435}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 4.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 2098 $\frac{8435}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 5.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

- 2099 $\frac{8435}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 6.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 2100 $\frac{8435}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 7.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 2101 $\frac{8435}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 8.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- SYNTROPHIA Hall & Clarke
- Syntrophia (?) calcifera** Billings (sp.)
- 2102 $\frac{8450}{1}$ HYPOTYPE Camarella calcifera Billings. Canadian naturalist and geologist. 1861. 6: 318.
Syntrophia (?) calcifera Hall & Clarke, Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 24.
Upper Cambrian Point Levis Can.
- Syntrophia lateralis** Whitfield (sp.)
- 2103 $\frac{8451}{1}$ HYPOTYPE Triplesia lateralis Whitfield. American museum of natural history bulletin. 1886. p. 303.
Syntrophia lateralis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 4.
Beekmantown limestone (Ft Cassin beds) Ft Cassin Vt.
- 2104 $\frac{8451}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 5.
Beekmantown limestone (Ft Cassin beds) Ft Cassin Vt.
- 2105 $\frac{8451}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 9, 10.
Beekmantown limestone (Ft Cassin beds) Ft Cassin Vt.
- SYRINGOTHYRIS A. Winchell
- Syringothyris randalli** Simpson
- 2106 $\frac{8460}{1}$ HYPOTYPE Syringothyris randalli Simpson. Transactions of the American philosophical society, new ser. 1889. 16:441.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 13.
Waverly beds Warren Pa.
C. E. Beecher, coll. 1884

- 2107 $\frac{8460}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 27, fig. 14, 17.
Waverly beds Warren Pa.

C. E. Beecher, coll. 1884

- 2108 $\frac{8460}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 15.
Waverly beds Warren Pa.

C. E. Beecher, coll. 1884

- 2109 $\frac{8460}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 27, fig. 16.
Waverly beds Warren Pa.

C. E. Beecher, coll. 1884

Syringothyris texta Hall

- 2110 $\frac{8461}{1}$ HYPOTYPE *Spirifer textus* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 169.

Syringothyris texta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 8, 9.

Keokuk beds

New Providence Ind.

- 2111 $\frac{8461}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 27, fig. 10.

Keokuk beds

New Providence Ind.

- 2112 $\frac{8461}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 27, fig. 11.

Keokuk beds

New Providence Ind.

Syringothyris typus A. Winchell

- 2113 $\frac{8462}{1}$ HYPOTYPE *Syringothyris typa* Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 48, fig. 40.

Keokuk beds

New Providence Ind.

R. P. Whitfield, coll. 1865

TEREBRATULA Llhwyd

Terebratula adrieni see *Retzia adrieni*

Terebratula crispa see *Spirifer crispus*

Terebratula marginalis see *Atrypa marginalis*

Terebratula mormoni see *Hustedia mormoni*

Terebratula ? ontario Hall

2114 $\frac{8470}{1}$ TYPE *Terebratula ontario* Hall. Paleontology of New York. 1867. 4:418, pl. 60, fig. 46-48.

Hamilton shales Canandaigua lake, N. Y.

Terebratula ovoides see *Rensselaeria ovoides*

Terebratula planirostra see *Cryptonella planirostris*

Terebratula rectirostra see *Cryptonella rectirostris*

Terebratula romingeri see *Cranaena romingeri*

Terebratula spiriferoides see *Athyris spiriferoides*

Terebratula subtilita see *Seminula subtilita*

Terebratula sullivanti see *Eunella sullivanti*

Terebratula trinucleus see *Seminula trinuclea*

Terebratulites biforatus see *Platystrophia biforata*

TREMATIS Sharpe**Trematis millepunctata** Hall

2115 $\frac{8480}{1}$ HYPOPLASTOTYPE *Trematis millepunctata* Hall. Descriptions of new species of Crinoidea and other fossils. 1866. p. 14.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4G, fig. 4.

Cincinnati Covington Ky.

TREMATOSPIRA Hall**Trematospira camura** Hall

2116 $\frac{8490}{1}$ HYPOTYPE *Atrypa camura* Hall. Paleontology of New York. 1852. 2: 273.

Trematospira camura Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 4.

Rochester shales Lockport N. Y.

Trematospira hirsuta see *Parazyga hirsuta*

Trematospira multistriata Hall

2117 $\frac{8491}{1}$ HYPOTYPE *Spirifer multistriatus* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 59.

Trematospira multistriata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 11.

Helderbergian

Near Clarksville N. Y.

- 2118 $\frac{8491}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 49, fig. 12.
Helderbergian The Helderberg, N. Y.
- 2119 $\frac{8491}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 49, fig. 13.
Helderbergian The Helderberg, N. Y.
- 2120 $\frac{8491}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1894. v. 8, pt 2, pl. 49, fig. 14.
Helderbergian The Helderberg, N. Y.
- 2121 $\frac{8491}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 6, fig. 1.
Oriskanian Becraft mountain, Hudson N. Y.
- 2122 $\frac{8491}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 6, fig. 2.
Oriskanian Becraft mountain, Hudson N. Y.
- 2123 $\frac{8491}{7}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 6, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.
- 2124 $\frac{8491}{8}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 6, fig. 4.
Oriskanian Becraft mountain, Hudson N. Y.
- Trematospira? nobilis see Cyclorhina nobilis

Trematospira perforata Hall

- 2125 $\frac{8492}{1}$ TYPE Spirifer? perforatus Hall. Descriptions of
new species of paleozoic fossils; in regents report.
1857. p. 60.
Trematospira perforata Hall. Paleontology
of New York. 1859. v. 3, pl. 28A, fig. 3h.
New Scotland beds Becraft mountain, Hudson N. Y.

TRIGERIA Bayle

Trigeria (?) lepida Hall

- 2126 $\frac{8500}{1}$ TYPE Rhynchospira lepida Hall. 13th annual
report of the New York state cabinet of natural history.
1860. p. 83.
Hall. Paleontology of New York. 1867. v. 4, pl. 45,
fig. 1.
Hamilton shales Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

TRIMERELLA Billings

Trimerella acuminata Billings

- 2127 $\frac{8510}{1}$ HYPOPLASTOTYPE *Trimerella acuminata* Billings
Paleozoic fossils. 1865. 1:167.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 4B, fig. 6.
Niagaran Port Byron Ill.

Trimerella ohioensis Meek

- 2128 $\frac{8511}{1}$ HYPOPLASTOTYPE *Trimerella ohioensis* Meek.
American journal of science, ser. 3. 1871. 1:305.
Hall & Clarke. Paleontology of New York. 1892.
v. 8, pt 1, pl. 4A, fig. 3.
Niagaran Port Byron Ill.
- 2129 $\frac{8511}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New
York. 1892. v. 8, pt 1, pl. 4A, fig. 4.
Niagaran Rising Sun O.
- 2130 $\frac{8511}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1892. v. 8, pt 1, pl. 4A, fig. 8.
Niagaran Ottawa county, O.

TRIPLECIA Hall

Triplecia extans Emmons (sp.)

- 2131 $\frac{8520}{1}$ HYPOTYPE *Atrypa extans* Emmons. Geology of
New York; report on the 2d district. 1842. p. 395.
Triplecia extans Hall & Clarke. Paleontology
of New York. 1892. v. 8, pt 1, pl. 11C, fig. 4.
Trenton limestone Carlton island, Jefferson co. N. Y.
J. M. Clarke purchase

Triplecia spiriferoides McCoy (sp.)

- 2132 $\frac{8521}{1}$ HYPOTYPE *Leptaena* (*Strophomena*) *spirifer-*
oides McCoy. Annals and magazine of natural history,
ser. 2. 8:402.
Triplecia spiriferoides Hall & Clarke. Paleon-
tology of New York. 1892. v. 8, pt 1, pl. 11C, fig. 10, 11.
Caradoc sandstone Wales
Murchison collection

Triplesia lateralis see *Syntrophia lateralis*

Triplesia putillus see *Mimulus waldronensis*

TROPIDOLEPTUS Hall

Tropidoleptus carinatus Conrad (sp.)

- 2133 $\frac{8530}{1}$ HYPOTYPE *Strophomena carinata* Conrad. 3d annual report of the New York geological survey. 1839. p. 64.
Tropidoleptus carinatus Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3a.
 Hamilton shales Canandaigua lake, N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1862
- 2134 $\frac{8530}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3e.
 Hamilton shales Menteth's point, Canandaigua lake, N. Y.
 R. P. Whitfield and J. W. Hall, coll. 1858
- 2135 $\frac{8530}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3i-3k.
 Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 83, fig. 30-32.
 Hamilton shales Canandaigua lake, N. Y.
 R. P. Whitfield and J. W. Hall, coll. 1858
- 2136 $\frac{8530}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3n, 3o.
 Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 35.
 Hamilton shales Canandaigua lake, N. Y.
- 2137 $\frac{8530}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3t, 3u.
 Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 33.
 Hamilton beds Fultonham, Schoharie co. N. Y.
- 2138 $\frac{8530}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, p. 406, fig. 1, 2.
 Hamilton shales Canandaigua lake, N. Y.
- 2139 $\frac{8530}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 26.
 Hamilton shales Canandaigua lake, N. Y.

UNCINULUS Bayle**Uncinulus abruptus** Hall

- 2140 $\frac{8540}{1}$ **HYPOTYPE** *Rhynchonella abrupta* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 68.

Uncinulus abruptus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 58, fig. 15.

Helderbergian The Helderberg, N. Y.

- 2141 $\frac{8540}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 58, fig. 17, 18.

- 2142 $\frac{8540}{3}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 58, fig. 19.

Helderbergian The Helderberg, N. Y.

Uncinulus mutabilis Hall

- 2143 $\frac{8541}{1}$ **TYPE** *Rhynchonella mutabilis* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 66, fig. 6.

Hall. Paleontology of New York. 1859. v. 3, pl. 30, fig. 2p.

Helderbergian Schoharie N. Y.

Uncinulus nobilis Hall

- 2144 $\frac{8542}{1}$ **TYPE** *Rhynchonella nobilis* Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 81, fig. 1.

Helderbergian Schoharie N. Y.

- 2145 $\frac{8542}{2}$ **TYPE** Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 81, fig. 2.

Helderbergian Schoharie N. Y.

VITULINA Hall**Vitulina pustulosa** Hall

- 2146 $\frac{8550}{1}$ **HYPOTYPE** *Vitulina pustulosa* Hall. 13th annual report of the New York state cabinet of natural history. 1850. p. 82.

Hall. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 10.

Hamilton shales Canandaigua lake, N. Y.

- 2147 $\frac{8550}{2}$ **HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 12.

Middle Devonian Eréré, Brazil

- 2148 $\frac{8550}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 13.
Middle Devonic Ereré, Brazil
- 2149 $\frac{8550}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 18.
Hamilton shales Canandaigua lake, N. Y.
- 2150 $\frac{8550}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 23.
Hamilton shales Tully N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863
- 2151 $\frac{8550}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 24.
Hamilton shales Canandaigua lake, N. Y.
Waldheimia deweyi see *Parazyga deweyi*
Waldheimia formosa see *Rhynchospira formosa*

WHITFIELDDELLA Hall & Clarke

Whitfieldella intermedia Hall

- 2152 $\frac{8560}{1}$ HYPOTYPE *Atrypa intermedia* Hall. Paleontology of New York. 1852. 2:77.
Whitfieldella intermedia Hall & Clarke.
Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 1.
Clinton beds Hamilton Ont.
- 2153 $\frac{8560}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 2.
Clinton beds Hamilton Ont.

Whitfieldella cf. laevis Whitfield (sp.)

- 2154 $\frac{8561}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Meristella laevis* Whitfield. Annals of the New York academy of sciences. 1882. 2:195.
Whitfieldella cf. laevis Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 4a-4c.
Manlius limestone Erie county, N. Y.
A. W. Grabau, coll.
- 2155 $\frac{8561}{2}$ HYPOPLASTOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 4d.
Manlius limestone Erie county, N. Y.
A. W. Grabau, coll.

Whitfieldella (?) naviformis Hall

- 2156 $\frac{85.62}{1}$ HYPOTYPE *Atrypa naviformis* Hall. Geology of New York; report on the 4th district. 1843. p. 72.
Whitfieldella (?) naviformis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 3.
 Clinton beds Western New York

Whitfieldella nitida Hall

- 2157 $\frac{85.63}{1}$ HYPOTYPE *Atrypa nitida* Hall. Geology of New York; report on the 4th district. 1843. Explanation table 14 [13].
Meristina nitida Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 6, 6a.
 Niagaran Waldron Ind.
- 2158 $\frac{85.63}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 7, 7a.
 Niagaran Waldron Ind.

- C. D. Walcott and C. Van Deloo, coll. 1878
- 2159 $\frac{85.63}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 8, 8a.
 Niagaran Waldron Ind.
- C. D. Walcott and C. Van Deloo, coll. 1878
- 2160 $\frac{85.63}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 10, 10a.
 Niagaran Waldron Ind.

- C. D. Walcott and C. Van Deloo, coll. 1878
- 2161 $\frac{85.63}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 6.
 Niagaran Waldron Ind.

Whitfieldella (?) nucleolata Hall

- 2162 $\frac{85.64}{1}$ TYPE *Atrypa nucleolata* Hall. Paleontology of New York. 1852. 2:328, pl. 74, fig. 10a, 10d.
 Coralline (Cobleskill) limestone Schoharie N. Y.
- 2163 $\frac{85.64}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 47, fig. 10b, 10e.
 Coralline (Cobleskill) limestone Schoharie N. Y.
- 2164 $\frac{85.64}{3}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 10g, 10h.
 Coralline (Cobleskill) limestone Schoharie N. Y.

- 2165 $\frac{8564}{4}$ TYPE Hall. Paleontology of New York. 1852. v. 2,
pl. 74, fig. 101, 10k, 10l.
Coralline (Cobleskill) limestone Schoharie N. Y.

Whitfieldella cf. rotundata Whitfield (sp.)

- 2166 $\frac{8565}{1}$ HYPOTYPE *Nucleospira rotundata* Whitfield.
Annals of the New York academy of sciences. 1882.
2: 194.

Whitfieldella cf. rotundata Grabau. Bulletin of the Geological society of America. 1900. v. 11,
pl. 22, fig. 3a, 3b.

Manlius limestone

Akron, Erie co. N. Y.

A. W. Grabau, coll.

Whitfieldella sulcata Vanuxem (sp.)

- 2167 $\frac{8566}{1}$ HYPOTYPE *Atrypa sulcata* Vanuxem. Geological
survey of New York; report on the 3d district. 1842.
p. 112.

Whitfieldella sulcata Grabau. Bulletin of the
Geological society of America. 1900. v. 11, pl. 22,
fig. 2a.

Manlius limestone

Erie county, N. Y.

A. W. Grabau, coll.

- 2168 $\frac{8566}{2}$ HYPOTYPE Grabau. Bulletin of the Geological society of
America. 1900. v. 11, pl. 22, fig. 2b.

Manlius limestone

Erie county, N. Y.

A. W. Grabau, coll.

- 2169 $\frac{8566}{3}$ HYPOPLASTOTYPE Grabau. Bulletin of the Geological
society of America. 1900. v. 11, pl. 22, fig. 2c, 2d.

Manlius limestone

Erie county, N. Y.

A. W. Grabau, coll.

WILSONIA Kayser

Wilsonia ventricosa Hall

- 2170 $\frac{8580}{1}$ TYPE *Rhynchonella ventricosa* Hall. 10th
annual report of the New York state cabinet of natural
history. 1857. p. 79, fig. 1-3, 6.

Helderbergian

Schoharie N. Y.

- 2171 $\frac{8580}{2}$ HYPOTYPE *Wilsonia ventricosa* Hall & Clarke.
Paleontology of New York. 1894. v. 8, pt 2, pl. 58,
fig. 14.

Helderbergian

Schoharie county, N. Y.

ZYGOSPIRA Hall

Zygospira (Orthonomaea) erratica Hall

- 2172 $\frac{8590}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Orthis?* *erratica* Hall. Paleontology of New York. 1847. 1:288.

Zygospira (Orthonomaea) erratica Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 54, fig. 22.

Lorraine beds

Drift block of central New York

Zygospira minima Hall

- 2173 $\frac{8591}{1}$ TYPE *Zygospira minima* Hall. Descriptions of new species of fossils from Waldron, Indiana. 1879. p. 14. Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 7.

Niagaran

Waldron Ind.

Zygospira modesta (Say) Hall

- 2174 $\frac{8592}{1}$ HYPOTYPE *Atrypa modesta* (Say) Hall. Paleontology of New York. 1847. 1:141.

Zygospira modesta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 155, fig. 148.

Cincinnatian

Cincinnati O.

- 2175 $\frac{8592}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 155, fig. 149.

Cincinnatian

Cincinnati O.

LAMELLIBRANCHIATA

ACTINOPTERIA Hall

Actinopteria auriculata Hall

- 2176 $\frac{9000}{1}$ TYPE *Actinopteria auriculata* Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 84, fig. 15.

Chemung beds

Lawrenceville, Tioga co. Pa.

A. Sherwood, coll. 1871

Actinopteria boydi Conrad (sp.)

- 2177 $\frac{9001}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Avicula boydi* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:237.

Actinopteria boydi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 7.

Hamilton beds

Fultonham, Schoharie co. N. Y.

W. M. Gabb, coll. 1857

2178 $\frac{9001}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 19, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 12; pl. 84, fig. 17.

Hamilton beds

Hamilton, Madison co. N. Y.

J. Hall, coll. 1862

2179 $\frac{9001}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 19, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 18.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

2180 $\frac{9001}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 19, fig. 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 19.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

2181 $\frac{9001}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 19, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 20.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

2182 $\frac{9001}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 19, fig. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 22.

Hamilton beds

Delphi, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

2183 $\frac{9001}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 19, fig. 23.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 23.

Hamilton beds

Delphi N. Y.

G. B. Simpson, coll. 1863

- 2184 $\frac{2001}{8}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 19, fig. 27.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 19, fig. 27.

Hamilton beds

Cazenovia N. Y.

J. Hall, coll. 1862

Actinopteria communis Hall (sp.)

- 2185 $\frac{2002}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Avicula communis*
Hall. Paleontology of New York. 1859. 3:286.

Actinopteria communis Clarke. New York
state museum memoir 3. 1900. pl. 4, fig. 1.

Oriskanian

Becraft mountain, Hudson N. Y.

- 2186 $\frac{2002}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 4, fig. 2.

Oriskanian

Becraft mountain, Hudson N. Y.

Actinopteria decussata Hall

- 2187 $\frac{2003}{1}$ HYPOTYPE *Avicula decussata* Hall. Geology of
New York; report on the 4th district. 1843. p. 203.

Actinopteria decussata Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 17, fig. 24.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 17, fig. 24.

Hamilton beds

Dresden, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2188 $\frac{2003}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 17, fig. 28.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 17, fig. 28.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2189 $\frac{2003}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 18, fig. 2, 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 18, fig. 2, 9.

Hamilton beds

York N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2190 $\frac{2003}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 18, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 18, fig. 3.
Hamilton beds Geneseo, Livingston co. N. Y.
- 2191 $\frac{2003}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 18, fig. 4, 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 18, fig. 4, 6.
Hamilton beds Canandaigua lake, N. Y.
- 2192 $\frac{2003}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 18, fig. 5.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 18, fig. 5.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2193 $\frac{2003}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 18, fig. 11.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 18, fig. 11.
Hamilton beds Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- 2194 $\frac{2003}{8}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 18, fig. 15.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 18, fig. 15.
Hamilton beds York N. Y.
C. A. White and C. Van Deloo, coll. 1860

Actinopteria delta Hall

- 2195 $\frac{2004}{1}$ **TYPE** Actinopteria delta Hall. Paleontology of
New York. 1883. v. 5, pt 1, plates and explanations,
pl. 23, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 23, fig. 3.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria epsilon Hall

- 2196 $\frac{2005}{1}$ **TYPE** Actinopteria epsilon Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 23, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 23, fig. 4.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2197 $\frac{9005}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 23, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 23, fig. 8.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria eschwegii Clarke

2198 $\frac{9006}{1}$ TYPE Actinopteria eschwegii Clarke. Archivos
do Museu nacional do Rio de Janeiro. 1899. 10:45,
pl. 5, fig. 9.

Maecurú sandstone (Lower Devonian) Rio Maecurú, Pará
Brazil

O. A. Derby, F. J. de Freitas and H. H. Smith, coll. 1876

Actinopteria eta Hall

2199 $\frac{9007}{1}$ TYPE Actinopteria eta Hall. Paleontology of
New York. 1884. v. 5, pt 1, p. 124, pl. 84, fig. 9.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria insignis Clarke

2200 $\frac{9008}{1}$ TYPE Actinopteria insignis Clarke. New York
state museum memoir 3. 1900. p. 35, pl. 4, fig. 10.

Oriskanian Becraft mountain, Hudson N. Y.

2201 $\frac{9008}{2}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 4, fig. 11.

Oriskanian Becraft mountain, Hudson N. Y.

2202 $\frac{9008}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum
memoir 3. 1900. pl. 4, fig. 12.

Oriskanian Becraft mountain, Hudson N. Y.

2203 $\frac{9008}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum
memoir 3. 1900. pl. 4, fig. 13.

Oriskanian Becraft mountain, Hudson N. Y.

Actinopteria iota Hall

2204 $\frac{9009}{1}$ TYPE Actinopteria iota Hall. Paleontology of
New York. 1884. v. 5, pt 1, p. 127, pl. 84, fig. 7.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria manticula Conrad (sp.)

- 2205 $\frac{9010}{1}$ HYPOTYPE *Avicula manticula* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 241.

Hall. Paleontology of New York. 1859. v. 3, pl. 51, fig. 7.

Coeymans limestone

Schoharie N. Y.

- 2206 $\frac{9010}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 51, fig. 8.

Coeymans limestone

Schoharie N. Y.

Actinopteria muricata Hall

- 2207 $\frac{9011}{1}$ HYPOTYPE *Avicula muricata* Hall. Geology of New York; report on the 4th district. 1843. p. 181.

Actinopteria muricata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 1.

Marcellus shale

Littleville, near West Avon,
Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2208 $\frac{9011}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 2.

Marcellus shale

Littleville, near West Avon N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2209 $\frac{9011}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 3.

Marcellus shale

Littleville, near West Avon, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Actinopteria obliquata Hall

- 2210 $\frac{9012}{1}$ TYPE *Avicula obliquata* Hall. Paleontology of New York. 1859. 3: 285, pl. 51, fig. 9.

Coeymans limestone

Schoharie N. Y.

- 2211 $\frac{9012}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 51, fig. 10.

Coeymans limestone

Schoharie N. Y.

Actinopteria pauciradiata Hall

- 2212 $\frac{9013}{1}$ TYPE *Avicula pauciradiata* Hall. Paleontology of New York. 1859. 3: 287, pl. 52, fig. 8.
New Scotland beds Schoharie N. Y.

Actinopteria perstrialis Hall

- 2213 $\frac{9014}{1}$ TYPE *Actinopteria perstrialis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 2.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 2214 $\frac{9014}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 7.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria pusilla Hall

- 2215 $\frac{9015}{1}$ TYPE *Actinopteria pusilla* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 117, pl. 84, fig. 3.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Actinopteria subdecussata Hall

- 2216 $\frac{9016}{1}$ TYPE *Pteronites subdecussata* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p 202.

Actinopteria subdecussata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 23.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 23.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

- 2217 $\frac{9016}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 25.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 25.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2218 $\frac{9016}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 26.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 2219 $\frac{9016}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 27.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 27.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 2220 $\frac{9016}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 29.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 29.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2221 $\frac{9016}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 30.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 30.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2222 $\frac{9016}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 31.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 31.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- Actinopteria textilis** Hall (sp.)
- 2223 $\frac{9017}{1}$ TYPE *Avicula textilis* Hall. Paleontology of New York. 1859. 3: 288, pl. 52, fig. 10.
New Scotland beds Schoharie N. Y.
- 2224 $\frac{9017}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 53, fig. 2.
New Scotland beds Schoharie N. Y.
- 2225 $\frac{9017}{3}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 53, fig. 7.
New Scotland beds Schoharie N. Y.

- 2226 $\frac{9017}{4}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 53, fig. 10.
New Scotland beds Schoharie N. Y.

Actinopteria textilis *var. arenaria* Hall

- 2227 $\frac{9018}{1}$ TYPE *Avicula textilis* *var. arenaria* Hall. Paleontology of New York. 1859. 3: 465, pl. 109, fig. 2.
Oriskanian Schoharie N. Y.

- 2228 $\frac{9018}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 110, fig. 2.
Oriskanian Schoharie N. Y.

Actinopteria zeta Hall

- 2229 $\frac{9019}{1}$ TYPE *Actinopteria zeta* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 9.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 9.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

ALLOCARDIUM Hall

Allocardium alternatum Hall

- 2230 $\frac{9030}{1}$ TYPE *Allocardium alternatum* Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 15.
Hamilton shale Cayuga lake, N. Y.
H. H. Smith, coll. 1871

AMBONYCHIA Hall

Ambonychia acutirostra *see* *Mytilarca acutirostra*

Ambonychia amygdalina Hall

- 2231 $\frac{9040}{1}$ PLASTOTYPE *Ambonychia amygdalina* Hall. Paleontology of New York. 1847. 1: 165, pl. 36, fig. 6a, 6c.
Trenton limestone Adams, Jefferson co. N. Y.

Ambonychia bellistriata Hall

- 2232 $\frac{9041}{1}$ PLASTOTYPE *Ambonychia bellistriata* Hall. Paleontology of New York. 1847. 1: 163, pl. 36, fig. 4b, 4c.
Trenton limestone Middleville, Herkimer co. N. Y.
Ambonychia obtusa *see* *Cyrtodonta obtusa*

Ambonychia orbicularis Emmons (sp.)

2233 $\frac{9042}{1}$ HYPOTYPE *Pterinea orbicularis* Emmons.
Geology of New York; report on the 2d district. 1842.
p. 395.

Ambonychia orbicularis Hall. Paleontology
of New York. 1847. v. 1, pl. 36, fig. 5a.

Trenton limestone

Watertown N. Y.

Ambonychia undata *see* *Clionychia undata*

Avicula aequiradiata *see* *Aviculopecten aequiradiatus*

Avicula bella *see* *Aviculopecten bellus*

Avicula bellula *see* *Aviculopecten bellulus*

Avicula boydi *see* *Aviculopecten boydi*

Avicula chemungensis *see* *Liopteria chemungensis*

Avicula chemungensis *see* *Pterinea chemungensis*

Avicula communis *see* *Actinopteria communis*

Avicula decussata *see* *Actinopteria decussata*

Avicula erecta *see* *Glyptodesma erectum*

Avicula flabella *see* *Pterinea flabellum*

Avicula fragilis *see* *Lunulicardium fragile*

Avicula gebhardi *see* *Aviculopecten gebhardi*

Avicula laevis *see* *Liopteria laevis*

Avicula limaeformis *see* *Limoptera? limaeformis*

Avicula longispina *see* *Leptodesma longispinum*

Avicula manticula *see* *Aviculopecten manticulus*

Avicula muricata *see* *Aviculopecten muricatus*

Avicula naviformis *see* *Pterinea naviformis*

Avicula obliquata *see* *Aviculopecten obliquatus*

Avicula obscura *see* *Pterinopecten (?) obscurus*

Avicula orbiculatus *see* *Lyriopecten orbiculatus*

Avicula pauciradiata *see* *Aviculopecten pauciradiatus*

Avicula schohariae *see* *Aviculopecten schohariae*

Avicula securiformis *see* *Pterinea halli*

Avicula securiformis *see* *Pterinea securiformis*

Avicula spinigera *see* *Leptodesma spinigerum*

Avicula subaequilatera *see* *Pterinopecten* (?)
subaequilaterus

Avicula textilis *see* *Actinopteria textilis*

Avicula textilis *see* *Actinopteria textilis var.*
arenaria

Avicula tricostrata *see* *Lyriopecten tricostratus*

AVICULOPECTEN McCoy

Aviculopecten aequiradiatus Hall (sp.)

- 2234 $\frac{9050}{1}$ TYPE *Avicula equiradiata* Hall. Paleontology
of New York. 1859. 3: 285, pl. 51, fig. 11.
New Scotland beds Schoharie N. Y.

Aviculopecten bellulus Hall (sp.)

- 2235 $\frac{9051}{1}$ TYPE *Avicula bellula* Hall. Paleontology of New
York. 1859. 3: 289, pl. 53, fig. 9.
New Scotland beds Schoharie N. Y.

Aviculopecten bellus Conrad (sp.)

- 2236 $\frac{9052}{1}$ HYPOTYPE *Avicula bella* Conrad. Annual report of
the New York state geological survey. 1841. p. 54.

Aviculopecten bellus Hall. Paleontology of
New York. 1883. v. 5, pt 1, plates and explanations,
pl. 2, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 2, fig. 9.

Hamilton shales Bellona, Yates co. N. Y.

C. Van Deloo and C. A. White, coll. 1860

- 2237 $\frac{9052}{2}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 81, fig. 8.

Hamilton shales

Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Aviculopecten cancellatus Hall

- 2238 $\frac{9053}{1}$ HYPOTYPE *Pecten cancellatus* Hall. Geology
of New York; report on the 4th district. 1843. p. 265.

Aviculopecten subcancellatus Hall. Paleon-
ontology of New York. 1883. v. 5, pt 1, plates and ex-
planations, pl. 7, fig. 14, 15.

Aviculopecten cancellatus Hall. Paleon-
tology of New York. 1884. v. 5, pt 1, pl. 7, fig. 14, 15.

Chemung (?) beds Conewango, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 2239 $\frac{9053}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 17.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 17.
Chemung (?) beds Conewango N. Y.
C. Van Deloo, coll. 1863

Aviculopecten celsus Hall

- 2240 $\frac{9054}{1}$ **TYPE** *Aviculopecten celsus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 29, 30.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 29, 30.
Chemung beds Salamanca, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Aviculopecten cleon Hall

- 2241 $\frac{9055}{1}$ **TYPE** *Aviculopecten cleon* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 1, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 1.
Onondaga limestone Columbus O.
R. P. Whitfield, coll. 1865

Aviculopecten duplicatus Hall

- 2242 $\frac{9056}{1}$ **HYPOTYPE** *Pecten duplicatus* Hall. Geology of New York; report on the 4th district. 1843. p. 264.
Aviculopecten duplicatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 6.
Chemung (?) beds Conewango N. Y.
C. Van Deloo, coll. 1863
- 2243 $\frac{9056}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 9.
Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871
- 2244 $\frac{9056}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 10.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Aviculopecten ellipticus Hall

- 2245 $\frac{9057}{1}$ TYPE *Aviculopecten ellipticus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 31.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 31.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

Aviculopecten exacutus Hall

- 2246 $\frac{9058}{1}$ TYPE: PLASTOTYPE *Aviculopecten exacutus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 18.

Hall. Paleontology of New York. 1884. v. 1, pt 1, pl. 3, fig. 18.

Hamilton beds

Hamburg, Erie co. N. Y.

C. A. White, coll. 1860

- 2247 $\frac{9058}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 19.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2248 $\frac{9058}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 20.

Hamilton beds

Hamburg N. Y.

C. Van Deloo, coll. 1864

- 2249 $\frac{9058}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 22.

Hamilton beds

Hamburg N. Y.

C. A. White, coll. 1860

Aviculopecten fasciculatus Hall

- 2250 $\frac{9059}{1}$ TYPE *Aviculopecten orestes* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 11.

Aviculopecten fasciculatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 11, pl. 5, fig. 11; pl. 81, fig. 3.

Hamilton beds Seneca Castle, Ontario co. N. Y.

C. A. White, coll. 1861

2251 $\frac{9059}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 12.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll.

2252 $\frac{9059}{3}$ TYPE *Aviculopecten repletus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 13.

Hamilton beds Western New York

2253 $\frac{9059}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 1.

Hamilton beds Near Clarksville, Albany co. N. Y.

J. W. Hall, coll. 1878

2254 $\frac{9059}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 2.

Hamilton beds Near Clarksville N. Y.

J. W. Hall, coll. 1878

2255 $\frac{9059}{6}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 4.

Hamilton beds Near Clarksville N. Y.

J. W. Hall, coll. 1878

Aviculopecten gebhardi (Conrad) Hall

2256 $\frac{9060}{1}$ TYPE *Avicula gebhardi* Conrad. Annual report on the paleontology of New York. 1841. p. 54.

Hall. Paleontology of New York. 1859. v. 3, pl. 110, fig. 1a.

Oriskanian Schoharie N. Y.

2257 $\frac{9060}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 111, fig. 2.

Oriskanian Schoharie N. Y.

Aviculopecten idas Hall

2258 $\frac{9061}{1}$ TYPE *Aviculopecten idas* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 3, fig. 1.

Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

2259 $\frac{9061}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 3, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 3, fig. 2.

Hamilton beds Darien, Genesee co. N. Y.
C. Van Deloo, coll. 1864

2260 $\frac{9061}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 24, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 24, fig. 4.

Hamilton beds Cayuga lake, N. Y.
H. H. Smith, coll. 1871

Aviculopecten (Crenipecten?) incultus Hall

2261 $\frac{9062}{1}$ TYPE Aviculopecten (Crenipecten?) incultus
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates
and explanations, pl. 9, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 9, fig. 3.

Chemung (?) conglomerate Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Aviculopecten insignis Hall

2262 $\frac{9063}{1}$ TYPE Aviculopecten insignis Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 1, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 1, fig. 8.

Hamilton beds Stafford, Genesee co. N. Y.

2263 $\frac{9063}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 3, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 3, fig. 13.

Hamilton beds Hamburg, Erie co. N. Y.
C. A. White, coll. 1860

Aviculopecten (Pterinopecten?) invalidus Hall

2264 $\frac{9064}{1}$ TYPE Aviculopecten (Pterinopecten?) inval-
idus Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 1, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 18; pl. 82, fig. 21.

Marcellus shale Cherry Valley, Otsego co. N. Y.

Aviculopecten itys Hall

- 2265 $\frac{9065}{1}$ TYPE *Aviculopecten itys* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 13.

Chemung (?) beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Aviculopecten lautus Hall

- 2266 $\frac{9066}{1}$ TYPE: PLASTOTYPE *Aviculopecten lautus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 16.

Hamilton beds West Bloomfield, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Aviculopecten mucronatus Hall

- 2267 $\frac{9067}{1}$ TYPE *Aviculopecten mucronatus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 15.

Hamilton beds Dresden, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Aviculopecten orestes see *Aviculopecten fasciculatus*

Aviculopecten ornatus Hall

- 2268 $\frac{9068}{1}$ TYPE *Aviculopecten ornatus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 7.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

- 2269 $\frac{9068}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 8.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

2270 $\frac{9068}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 14.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Aviculopecten patulus Hall

2271 $\frac{9069}{1}$ TYPE: PLASTOTYPE *Aviculopecten patulus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 32.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 32.

Chemung (?) conglomerate Salamanca N. Y.

R. P. Whitfield, coll. 1869

2272 $\frac{9069}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 33.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 33.

Chemung (?) conglomerate Salamanca N. Y.

R. P. Whitfield, coll. 1869

Aviculopecten plenus Hall

2273 $\frac{9070}{1}$ TYPE *Aviculopecten plenus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 3.

Chemung beds Elmira N. Y.

C. Van Deloo, coll. 1870

Aviculopecten princeps Conrad (sp.)

2274 $\frac{9071}{1}$ HYPOTYPE *Monotis princeps* Conrad. Annual report of the New York state geological survey. 1838. p. 117.

Aviculopecten princeps Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 18, 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 5, fig. 18, 19.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

2275 $\frac{9071}{2}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 6, fig. 1.

Hamilton beds Seneca lake, N. Y.

2276 $\frac{9071}{3}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 6, fig. 2.

Hamilton beds Hamilton, Madison co. N. Y.

2277 $\frac{9071}{4}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 6, fig. 3.

Hamilton beds Hamilton N. Y.

James Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 6, fig. 8.

2278 $\frac{9071}{5}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 6, fig. 8.

Hamilton beds Hamilton N. Y.

James Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 6, fig. 3.

2279 $\frac{9071}{6}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 6, fig. 9.

Hamilton beds Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

2280 $\frac{9071}{7}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 81, fig. 13.

Hamilton beds Ludlowville N. Y.

G. B. Simpson, coll. 1872

2281 $\frac{9071}{8}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 81, fig. 14.

Hamilton beds Vincent N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

2282 $\frac{9071}{9}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 81, fig. 16.

Hamilton beds Livingston county, N. Y.

Pickett collection

2283 $\frac{9071}{10}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 81, fig. 17.

Hamilton beds Western New York

Aviculopecten repletus see *Aviculopecten fasciculatus*

Aviculopecten rugaestriatus Hall

- 2284 $\frac{9072}{1}$ HYPOTYPE *Lima rugaestriata* Hall. Geology of New York; report on the 4th district. 1843. p. 264.

Aviculopecten rugaestriatus Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 11, 12.

Chemung beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Aviculopecten scabridus Hall

- 2285 $\frac{9073}{1}$ TYPE *Aviculopecten scabridus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 3.

Hamilton beds Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 2286 $\frac{9073}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 4.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

- 2287 $\frac{9073}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 6.

Hamilton beds Delphi falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 2288 $\frac{9073}{4}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 7, 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 7, 9.

Hamilton beds Western New York

- 2289 $\frac{9073}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 8

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 8.

Hamilton beds Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2290 $\frac{9073}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 10, 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 10, 11.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Aviculopecten schohariae Hall (sp.)

- 2291 $\frac{9074}{1}$ TYPE *Avicula schohariae* Hall. Paleontology of New York. 1859. 3:283, pl. 51, fig. 5.

New Scotland beds

Schoharie N. Y.

Aviculopecten subcancellatus see *Aviculopecten cancellatus*

Aviculopecten tenuis Hall

- 2292 $\frac{9075}{1}$ TYPE *Aviculopecten tenuis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 27.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 27

Chemung beds

Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 2293 $\frac{9075}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 28.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 28; pl. 81, fig. 6.

Chemung beds

Salamanca, Cattaraugus co. N. Y.

R. P. Whitfield, coll. 1869

Aviculopecten undulatus see *Pterinopecten undosus*

BYSSOPTERIA Hall

Byssopteria radiata Hall

- 2294 $\frac{9090}{1}$ TYPE *Mytilarca radiata* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 197.

Byssopteria radiata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 11.

Chemung beds

Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

Cardiola ? dichotoma see *Panenka dichotoma*

Cardiola ? elevata see *Panenka ventricosa*

Cardiola ? *equilatera* *see* Panenka *equilatera*
Cardiola erecta *see* Pararca *erecta*
Cardiola lincklaeni *see* Panenka *lincklaeni*
Cardiola ? *radians* *see* Panenka *radians*
Cardiola ? *radians* *see* Panenka *retusa*
Cardiola sao *see* Pararca *sao*
Cardiola transversa *see* Pararca *neglecta*
Cardiola transversa *see* Pararca *transversa*
Cardiomorpha cordata *see* Grammysia *globosa*
Cardiomorpha eriopia *see* Grammysia *eriopia*
Cardiomorpha oblonga *see* Protomya *oblonga*
Cardiomorpha rotunda *see* Paracyclas *rotunda*
Cardiomorpha rotunda *see* Schizodus *patulus*

CIMITARIA Hall

Cimitaria angulata Hall

- 2295 $\frac{9100}{1}$ TYPE *Cimitaria recurva* (Conrad) Hall (in part).
 Paleontology of New York. 1883. v. 5, pt 1, plates
 and explanations, pl. 77, fig. 15.

Cimitaria angulata Hall. Paleontology of New
 York. 1885. v. 5, pt 1, p. 468, pl. 77, fig. 15.

Chemung beds Between Elmira and Waverly N. Y.
 A. Sherwood, coll. 1871

Cimitaria corrugata Conrad (sp.)

- 2296 $\frac{9101}{1}$ HYPOTYPE *Cypricardites corrugata* Conrad.
 Journal of the Academy of natural sciences of Phila-
 delphia. 1842. 8: 244.

Cimitaria corrugata Hall. Paleontology of
 New York. 1883. v. 5, pt 1, plates and explanations,
 pl. 77, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1.
 pl. 77, fig. 1.

Hamilton beds Canandaigua lake, N. Y.
 R. P. Whitfield and J. W. Hall, coll. 1858

- 2297 $\frac{9101}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883.
 v. 5, pt 1, plates and explanations, pl. 77, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
 pl. 77, fig. 2.

Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860

- 2298 $\frac{9101}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 3.

Hamilton beds

Sherburne, Chenango co. N. Y.

Cimitaria elongata (Conrad) Hall

- 2299 $\frac{9102}{1}$ **TYPE** Cypricardites elongatus Conrad. Annual report of the New York state geological survey. 1841. p. 51.

Cimitaria elongata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 6.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 2300 $\frac{9102}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 7.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

Cimitaria recurva Conrad (sp.)

- 2301 $\frac{9103}{1}$ **HYPOTYPE** Cypricardites recurva Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:245.

Cimitaria recurva Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 9.

Hamilton beds

Delphi, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 2302 $\frac{9103}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 10.

Hamilton beds

Hamilton, Madison co. N. Y.

- 2303 $\frac{9103}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 14.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 14.

Hamilton beds

Hamilton N. Y.

Cimitaria recurva *see* *Cimitaria angulata*

CLIDOPHORUS Hall

Clidophorus planulatus (Conrad) Hall

- 2304 $\frac{9110}{1}$ **TYPE** *Nuculites planulata* Conrad. Annual report of the New York state geological survey. 1841. p. 48.

Cleidophorus planulatus Hall. Paleontology of New York. 1847. v. 1, pl. 82, fig. 9a.

Lorraine beds

Turin, Lewis co. N. Y.

CLINOPISTHA Meek & Worthen

Clinopistha telliniformis Hall

- 2305 $\frac{9120}{1}$ **TYPE** *Dystactella telliniformis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 28, 29.

Clinopistha telliniformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 28, 29.

Onondaga limestone

Cayuga Ont.

J. De Cew, coll. 1866

- 2306 $\frac{9120}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 30.

Onondaga limestone

Cayuga Ont.

J. De Cew, coll. 1866

CLIONYCHIA Ulrich

Clionychia undata Emmons (sp.)

- 2307 $\frac{2130}{1}$ **HYPOTYPE** *Pterinea undata* Emmons. Geology of New York; report on the 2d district. 1842. p. 395.

Ambonychia undata Hall. Paleontology of New York. 1847. v. 1, pl. 36, fig. 7a, 7b.

Trenton limestone

Watertown N. Y.

CONOCARDIUM Bronn

Conocardium attenuatum *see* *Conocardium cuneus var. attenuatum*

Conocardium cuneus (Conrad) Hall

- 2308 $\frac{9140}{1}$ TYPE *Pleurorhynchus cuneus* Conrad. Annual report of the New York state geological survey. 1840. p. 206.

Conocardium cuneus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 21, 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 21, 22.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase, 1872

- 2309 $\frac{9140}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 23.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 2310 $\frac{9140}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 25.

Schoharie grit

Knox N. Y.

C. Van Deloo, coll. 1862

- 2311 $\frac{9140}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 26.

Schoharie grit

Near Clarksville N. Y.

C. Van Deloo, coll. 1862

- 2312 $\frac{9140}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 27.

Schoharie grit

Near Clarksville N. Y.

- 2313 $\frac{9140}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 29.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 29.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862
- 2314 $\frac{9140}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 30.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 30.
Schoharie grit Schoharie N. Y.
- 2315 $\frac{9140}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 31.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 31.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862
- 2316 $\frac{9140}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 32.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 32.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862

Conocardium cuneus var. **attenuatum** (Conrad) Hall

- 2317 $\frac{9141}{1}$ TYPE *Pleurorhynchus attenuatus* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:252.
Conocardium attenuatum? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 1.
Conocardium cuneus var. *attenuatum* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 410, pl. 67, fig. 1.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 2318 $\frac{9141}{2}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 2.
Schoharie grit Knox N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

- 2319 $\frac{9141}{3}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 3.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862
- 2320 $\frac{9141}{4}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 4.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase, 1872
- 2321 $\frac{9141}{5}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 5, 10.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 5, 10.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase, 1872
- 2322 $\frac{9141}{6}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 7, 8.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 7, 8.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase, 1872
- 2323 $\frac{9141}{7}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 11.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 11.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862

Conocardium cuneus var. nasutum Hall

- 2324 $\frac{9142}{7}$ TYPE *Conocardium nasutum* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 12, 13.
Conocardium cuneus var. *nasutum* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 410, pl. 67, fig. 12, 13.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase, 1872

- 2325 $\frac{9142}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 14, 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 14, 15.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase, 1872

- 2326 $\frac{9142}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 17.

Schoharie grit

Schoharie N. Y.

Conocardium cuneus var. trigonale Hall

- 2327 $\frac{9143}{1}$ HYPOTYPE Pleurorhynchus trigonalis Hall. Geology of New York; report on the 4th district. 1843. p. 171.

Conocardium trigonale? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 68, fig. 1.

Conocardium cuneus var. trigonale Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 410, pl. 68, fig. 1.

Onondaga limestone

Williamsville N. Y.

Conocardium inceptum Hall

- 2328 $\frac{9144}{1}$ HYPOTYPE Conocardium inceptum Hall. Paleontology of New York. 1859. 3:491.

Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 21.

Oriskanian

Becraft mountain, Hudson N. Y.

- 2329 $\frac{9144}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 22.

Oriskanian

Becraft mountain, Hudson N. Y.

- 2330 $\frac{9144}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 23.

Oriskanian

Becraft mountain, Hudson N. Y.

Conocardium liratum Hall

- 2331 $\frac{9145}{1}$ TYPE: PLASTOTYPE Conocardium liratum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 68, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 68, fig. 28.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 68, fig. 29.

2332 $\frac{9145}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 68, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 68, fig. 29.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 68, fig. 28.

Conocardium nasutum see *Conocardium cuneus* var. *nasutum*

Conocardium trigonale? see *Conocardium cuneus* var. *trigonale*

CRENIPECTEN Hall

Crenipecten amplus Hall

2333 $\frac{9150}{1}$ TYPE *Crenipecten amplus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 9.

Chemung beds

Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

2334 $\frac{9150}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 13.

Chemung beds

Rockville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Crenipecten crenulatus Hall

2335 $\frac{9151}{1}$ HYPOTYPE *Pecten? crenulatus* Hall. Geology of New York; report on the 4th district. 1843. p. 265.

Crenipecten crenulatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 6.

Chemung beds

Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

- 2336 $\frac{9151}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 15.

Chemung beds Belmont, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Crenipecten glaber (?) Hall

- 2337 $\frac{9152}{1}$ HYPOTYPE Lima glaber Hall. Geology of New York; report on the 4th district. 1843. p. 255.

Crenipecten glaber (?) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 22.

Chemung beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Crenipecten impolitus Hall

- 2338 $\frac{9153}{1}$ TYPE Crenipecten impolitus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 14.

Chemung (?) conglomerate Olean, Allegany co. N. Y.

C. Van Deloo, coll. 1863

- 2339 $\frac{9153}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 10.

Chemung (?) conglomerate Olean N. Y.

C. Van Deloo, coll. 1863

Crenipecten liratus Hall

- 2340 $\frac{9154}{1}$ TYPE Crenipecten liratus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 24.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 24; pl. 83, fig. 9.

Chemung beds East Randolph, Cattaraugus co. N. Y.

Cucullea opima *see* Nucula opima

Cypricardia contracta *see* Sphenotus contractus

Cypricardia? rhombea *see* Schizodus rhombeus

CYPRICARDINIA Hall

Cypricardinia arcuata Hall

- 2341 $\frac{9160}{1}$ TYPE *Cypricardinia indenta* (Conrad) Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 17.

Cypricardinia arcuata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 486, pl. 79, fig. 17.

Chemung beds

Elmira N. Y.

C. Van Deloo, coll. 1870

Cypricardinia consimilis? Hall

- 2342 $\frac{9161}{1}$ TYPE? *Cypricardinia indenta* (Conrad) Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 18.

Cypricardinia consimilis? Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 486, pl. 79, fig. 18.

Waverly sandstone Richfield Center, Summit co. O.

C. A. White, coll. 1861

Cypricardinia indenta Conrad (sp.)

- 2343 $\frac{9162}{1}$ HYPOTYPE *Cypricardites indenta* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:244.

Cypricardinia indenta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 6.

Onondaga limestone Babcock hill, Oneida co. N. Y.

- 2344 $\frac{9162}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 7; pl. 96, fig. 2.

Onondaga limestone

Babcock hill, N. Y.

- 2345 $\frac{9162}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 8.

Onondaga limestone

Babcock hill, N. Y.

- 2346 $\frac{9162}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 14.

Hamilton beds Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2347 $\frac{9162}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 15.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2348 $\frac{9162}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 16.

Hamilton beds Owasco lake, N. Y.

G. B. Simpson, coll. 1863

- 2349 $\frac{9162}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 23.

Hamilton shales Moscow N. Y.

C. A. White and C. Van Deloo, coll. 1860

Cypricardinia indenta see *Cypricardinia arcuata*

Cypricardinia indenta see *Cypricardinia consimilis*?

***Cypricardinia lamellosa* Hall**

- 2350 $\frac{9163}{1}$ HYPOTYPE *Cypricardinia lamellosa* Hall. Paleontology of New York. 1859. 3:266.

Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 18.

Oriskanian Becraft mountain, Hudson N. Y.

- 2351 $\frac{9163}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 19.

Oriskanian Becraft mountain, Hudson N. Y.

- 2352 $\frac{9163}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 20.

Oriskanian Becraft mountain, Hudson N. Y.

Cypricardinia planulata Conrad (sp.)

- 2353 $\frac{9164}{1}$ HYPOTYPE *Pterinea planulata* Conrad. Journal of the academy of natural sciences of Philadelphia. 1842, 8: 251.

Cypricardinia planulata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations. pl. 79, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 2.

Schoharie grit

Schoharie N. Y.

- 2354 $\frac{9164}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 3.

Schoharie grit

Schoharie N. Y.

Cypricardites alta *see* *Modiomorpha alta*

Cypricardites chemungensis *see* *Goniophora chemungensis*

Cypricardites corrugata *see* *Cimitaria corrugata*

Cypricardites elongatus *see* *Cimitaria elongata*

Cypricardites indenta *see* *Cypricardinia indenta*

Cypricardites marcellensis *see* *Lunulicardium marcellense*

Cypricardites mytiloides *see* *Modiomorpha mytiloides*

Cypricardites nasuta *see* *Orthodesma nasutum*

Cypricardites recurva *see* *Cimitaria recurva*

Cypricardites rugosa *see* *Goniophora rugosa*

Cypricardites sectifrons *see* *Phthonia sectifrons*

Cypricardites sinuata *see* *Modiolopsis sinuata*

Cypricardites subalata *see* *Modiomorpha subalata*

Cypricardites truncata *see* *Sphenotus truncatus*

Cytherodon (Schizodus) *cuneus* *see* *Schizodus contractus*

Cytherodon (*Schizodus*) *oblatus* *see* *Schizodus oblatus*

Cytherodon (*Schizodus*) *pauper* *see* *Paracyclas? paupera*

Cytherodon (*Schizodus*) *quadrangularis* *see* *Schizodus chemungensis var. quadrangularis*

Cytherodon (*Schizodus*) *rhombeus* *see* *Schizodus rhombeus*

Cytherodon tumidus *see* *Schizodus tumidus*

Cytherodon (*Schizodus*) *tumidus* *see* *Schizodus tumidus*

CYRTODONTA Billings

Cyrtodonta obtusa Hall (sp.)

2355 $\frac{9170}{1}$ PLASTOTYPE *Ambonychia obtusa* Hall. Paleontology of New York. 1847. 1:167, pl. 36, fig. 8a, 8b.
Trenton limestone Watertown N. Y.

Dystactella telliniformis *see* *Clinopistha telliniformis*

ECTENODESMA Hall

Ectenodesma birostratum Hall

2356 $\frac{9180}{1}$ TYPE *Ectenodesma birostratum* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 29.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 29.

Chemung beds Franklin, Delaware co. N. Y.

Edward Orton, donor

EDMONDIA de Koninck

Edmondia burlingtonensis *see* *Edmondia subovata*

Edmondia burlingtonensis *see* *Edmondia transversa*

Edmondia obliqua Hall

2357 $\frac{9190}{1}$ TYPE *Edmondia philipi* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 15.

Edmondia obliqua Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 388, pl. 64, fig. 15; pl. 95, fig. 6.

Chemung beds Belvidere, Allegany co. N. Y.

R. P. Whitfield, coll. 1869

- 2358 $\frac{9190}{2}$ TYPE *Edmondia philipi* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 16.

Edmondia obliqua Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 16.

Chemung beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

- 2359 $\frac{9190}{3}$ TYPE^{*} Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 5.

Chemung beds Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

- 2360 $\frac{9190}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 8.

Chemung beds Mansfield Pa.

A. Sherwood, coll. 1871

Edmondia philipi Hall

- 2361 $\frac{9191}{1}$ TYPE *Edmondia philipi* Hall. Preliminary notice lamellibranchiate shells, pt 2. 1870. p. 90.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 9.

Chemung beds Belvidere, Allegany co. N. Y.

R. P. Whitfield, coll. 1869

- 2362 $\frac{9191}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 11; pl. 95, fig. 2.

Chemung beds Belvidere N. Y.

R. P. Whitfield, coll. 1869

- 2363 $\frac{9191}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 19 pl. 64, fig. 12; pl. 95, fig. 3.

Chemung beds East Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863,

- 2364 $\frac{9191}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 13.

Chemung beds Belvidere N. Y.

R. P. Whitfield, coll. 1869

- 2365 $\frac{9191}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 17.

Chemung beds

Belvidere N. Y.

R. P. Whitfield, coll. 1869

Edmondia philipi see *Edmondia obliqua*

Edmondia philipi see *Edmondia subovata*

***Edmondia rhomboidea* Hall**

- 2366 $\frac{9192}{1}$ TYPE *Edmondia rhomboidea* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 191.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 7.

Chemung (?) conglomerate

Salamanca,

Cattaraugus co. N. Y.

R. P. Whitfield, coll. 1869

Edmondia subnasuta see *Grammysia* ? *subnasuta*

***Edmondia subovata* Hall**

- 2367 $\frac{9193}{1}$ TYPE *Edmondia philipi* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 18.

Edmondia subovata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 389, pl. 64, fig. 18; pl. 95, fig. 11.

Chemung beds

Belvidere, N. Y.

R. P. Whitfield, coll. 1869

- 2368 $\frac{9193}{2}$ TYPE *Edmondia burlingtonensis* (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 20; pl. 95, fig. 10.

Chemung beds

Belmont, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

- 2369 $\frac{9193}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 26.

Chemung beds

Belvidere N. Y.

R. P. Whitfield, coll. 1869

- 2370 $\frac{9193}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 9.

Chemung beds

Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

- 2371 $\frac{9193}{5}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 12.

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1871

Edmondia transversa Hall

- 2372 $\frac{9194}{1}$ TYPE *Edmondia burlingtonensis* (White & Whitfield) Hall (in part). Paleontology of New York, 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 24.

Edmondia transversa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 389, pl. 64, fig. 24.

Chemung beds Cold Spring, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863.

Edmondia undata see *Grammysia undata*

Edmondia undulata see *Sanguinolites* (?) subtruncatus

Edmondia undulata see *Sanguinolites* (?) undulatus

ELYMELLA Hall

Elymella levata Hall

- 2373 $\frac{9210}{1}$ TYPE *Elymella levata* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 504; p. 562, figure.

Hamilton beds

Jefferson, Schoharie co. N. Y.

J. W. Hall and G. B. Simpson, coll. 1869.

Elymella nuculoides Hall

- 2374 $\frac{9211}{1}$ TYPE *Modiomorpha? hyalea* Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 40, fig. 6.

Elymella nuculoides Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 503, pl. 40, fig. 6.

Hamilton beds

Cooperstown, Otsego co. N. Y.

C. Van Deloo, coll. 1864

- 2375 $\frac{9211}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 40, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 40, fig. 8.

Hamilton beds

Ludlowville, Tompkins co. N. Y.

H. H. Smith, coll. 1871

FORDILLA Barrande

Fordilla troyensis Barrande

- 2376 $\frac{9220}{1-5}$ TYPE (5 specimens) Bivalve of uncertain class, *gen. nov.?*
Ford. American journal of science and arts, ser. 3. 1873.
6:139 (not figured).

Fordilla troyensis Barrande. Système Silurien
du centre de la Bohême. 1881. v. 6, explanation of pl.
361. 5 specimens.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

GLOSSITES Hall

Glossites depressus Hall

- 2377 $\frac{9230}{1}$ TYPE Modiomorpha? amygdalina (Winchell)
Hall (in part). Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 40, fig. 15.

Glossites depressus Hall. Paleontology of New
York. 1885. v. 5, pt 1, p. 496, pl. 40, fig. 15.

Chemung beds

Elmira N. Y.

J. W. Hall and C. Van Deloo, coll. 1866.

Glossites ellipticus Hall

- 2378 $\frac{9231}{1}$ TYPE Glossites ellipticus Hall. Paleontology of
New York. 1885. v. 5, pt 1, p. 498, pl. 96, fig. 8.

Chemung beds

Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

Glossites lingualis Hall

- 2379 $\frac{9232}{1}$ TYPE Glossites lingualis Hall. Paleontology of
New York. 1885. v. 5, pt 1, p. 497, pl. 96, fig. 9

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1873

- 2380 $\frac{9232}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5,
pt 1, pl. 96, fig. 10.

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1873

- 2381 $\frac{9232}{3}$ TYPE Hall. Paleontology of New York. 1885. v. 5,
pt 1, pl. 96, fig. 11.

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1871

Glossites patulus Hall

- 2382 $\frac{9233}{1}$ TYPE *Glossites patulus* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 501, pl. 96, fig. 15.
Chemung beds Mansfield Pa.

A. Sherwood, coll. 1871

- 2383 $\frac{9233}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 96, fig. 16.
Chemung beds Mansfield Pa.

A. Sherwood, coll. 1871

Glossites procerus Hall

- 2384 $\frac{9234}{1}$ TYPE *Glossites procerus* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 499, pl. 96, fig. 13.
Chemung beds Mansfield Pa.

A. Sherwood, coll. 1873

Glossites rudicula Hall

- 2385 $\frac{9235}{1}$ TYPE *Glossites rudicula* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 498, pl. 96, fig. 17.
Chemung beds Nelson, Tioga co. Pa.

Glossites subnasutus Hall

- 2386 $\frac{9236}{1}$ TYPE *Glossites subnasutus* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 500, pl. 96, fig. 14.
Chemung beds Mansfield Pa.

A. Sherwood, coll. 1871

Glossites teretis Hall

- 2387 $\frac{9237}{1}$ TYPE *Glossites teretis* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 494, pl. 96, fig. 18.
Onondaga limestone Littleville, Livingston co. N. Y.

C. Van Deloo, coll. 1878

GLYPTODESMA Hall**Glyptodesma erectum** Conrad (sp.)

- 2388 $\frac{9240}{1}$ HYPOTYPE *Avicula erecta* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:238.
Glyptodesma erectum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 11, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 11, fig. 5.

Hamilton beds

Cazenovia N. Y.

J. Hall, coll. 1862

- 2389 $\frac{9240}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 11, fig. 7.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 11, fig. 7.
Hamilton beds Madison county, N. Y.
- 2390 $\frac{9240}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 11, fig. 8.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 11, fig. 8; pl. 86, fig. 6.
Hamilton beds Cazenovia N. Y.
J. Hall, coll. 1862
- 2391 $\frac{9240}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 12, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 12, fig. 1.
Hamilton beds Cazenovia N. Y.
J. Hall, coll. 1862
- 2392 $\frac{9240}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 12, fig. 5.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 12, fig. 5.
Hamilton beds Summit Corners, Schoharie co. N. Y.
- 2393 $\frac{9240}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 12, fig. 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 12, fig. 6.
Hamilton beds Hamilton, Madison co. N. Y.
J. Hall, coll. 1862
- 2394 $\frac{9240}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 25, fig. 14.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 25, fig. 14.
Hamilton beds From a boulder near Nichols N. Y.
A. Sherwood, coll. 1871
- 2395 $\frac{9240}{8}$ **HYPOTYPE** Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 86, fig. 1.
Hamilton beds Fabius village, Onondaga co. N. Y.
G. B. Simpson, coll. 1863
- 2396 $\frac{9240}{9}$ **HYPOTYPE** Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 86, fig. 2.
Hamilton beds Cayuga lake, N. Y.
H. H. Smith, coll. 1871

- 2397 $\frac{9240}{10}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 86, fig. 4.
Hamilton beds Cayuga lake, N. Y.
H. H. Smith, coll. 1871
- 2398 $\frac{9240}{11}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 86, fig. 7.
Hamilton beds Gilbertsville, Otsego co. N. Y.
A. Sherwood, coll. 1871
- 2399 $\frac{9240}{12}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 86, fig. 8.
Hamilton beds Near Clarksville, Albany co. N. Y.
J. W. Hall, coll. 1878
- 2400 $\frac{9240}{13}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 87, fig. 1.
Hamilton beds Delphi N. Y.
C. Van Deloo and H. H. Smith, coll. 1873
- 2401 $\frac{9240}{14}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 87, fig. 2.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 2402 $\frac{9240}{15}$ HYPOTYPE Hall. Paleontology of New York. 1884.
v. 5, pt 1, pl. 87, fig. 3.
Hamilton beds From a boulder near Waverly,
Tioga co. N. Y.
A. Sherwood, coll. 1871

***Glyptodesma erectum* var. *obliquum* Hall**

- 2403 $\frac{9241}{1}$ TYPE *Glyptodesma erectum* var. *obliquum*
Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 12, fig. 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 12, fig. 4.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 2404 $\frac{9241}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 13, fig. 11.
Hall. Paleontology of New York. 1884. pl. 13,
fig. 11.
Hamilton beds Madison county, N. Y.

GONIOPHORA Phillips

Goniophora? alata Hall

2405 $\frac{9250}{1}$ TYPE *Goniophora? alata* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 294, pl. 34, fig. 7.

Schoharie grit

Schoharie N. Y.

2406 $\frac{9250}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase, 1872

Goniophora chemungensis Vanuxem (sp.)

2407 $\frac{9251}{1}$ HYPOTYPE *Cypricardites chemungensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 181.

Goniophora chemungensis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 18.

Chemung beds

Owego N. Y.

2408 $\frac{9251}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883 v. 5, pt 1, plates and explanations, pl. 44, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 20.

Chemung beds

Binghamton N. Y.

2409 $\frac{9251}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 22.

Chemung beds

Broome county, N. Y.

Goniophora chemungensis see *Goniophora subrecta*

Goniophora glabra see *Goniophora glaucus*

Goniophora glabra see *Goniophora trigona*

Goniophora glaucus Hall

2410 $\frac{2252}{1}$ TYPE *Sanguinolites glaucus* Hall. Preliminary notice lamellibranchiate shells, pt 2. 1870. p. 38.

Goniophora glabra Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 11.

Goniophora glaucus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 299, pl. 44, fig. 11.

Hamilton beds

Madison county, N. Y.

- 2411 $\frac{9252}{2}$ TYPE Hall (in error). Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 44, fig. 12.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 44, fig. 12.
Hamilton beds (drift) Apulia, Onondago co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863
- 2412 $\frac{9252}{3}$ TYPE Hall (in error). Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 44, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 44, fig. 13.
Hamilton beds Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862
- 2413 $\frac{9252}{4}$ TYPE Hall (in error). Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 44, fig. 16.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 44, fig. 16.
Hamilton beds Schoharie county, N. Y.
J. Gebhard purchase, 1872
- 2414 $\frac{9252}{5}$ TYPE Hall (in error). Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 44, fig. 17.
Hall. Paleontology of New York. 1885. v. 5, pt 1
pl. 44, fig. 17.
Hamilton beds Madison county, N. Y.
- Goniophora hamiltonensis Hall**
- 2415 $\frac{9253}{1}$ TYPE Sanguinolites hamiltonensis Hall. Pre-
liminary notice lamellibranchiate shells, pt 2. 1870.
p. 36.
Goniophora hamiltonensis Hall. Paleon-
tology of New York. 1883. v. 5, pt 1, plates and
explanations, pl. 43, fig. 12.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 43, fig. 12.
Hamilton beds Fultonham, Schoharie co. N. Y.
J. Hall, coll. 1844
- 2416 $\frac{9253}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 43, fig. 14.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 43, fig. 14.
Hamilton beds Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

- 2417 $\frac{9253}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 20.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 20.
Hamilton beds Summit Corners N. Y.
C. Van Deloo, coll. 1862

Goniophora ida Hall

- 2418 $\frac{9254}{1}$ TYPE Sanguinolites ida Hall. Preliminary notice lamellibranchiate shells, pt. 2. 1870. p. 43.
Goniophora ida Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 300, pl. 42, fig. 13.
Hamilton beds Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- 2419 $\frac{9254}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 20.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 20.
Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Goniophora perangulata Hall

- 2420 $\frac{9255}{1}$ TYPE Sanguinolites perangulatus Hall. Preliminary notice lamellibranchiate shells, pt 2. 1870. p. 35.
Goniophora perangulata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34, fig. 1.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 34, fig. 1; pl. 42, fig. 2.
Schoharie grit Schoharie N. Y.
- 2421 $\frac{9255}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34, fig. 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 34, fig. 2.
Schoharie grit Schoharie N. Y.
- 2422 $\frac{9255}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34, fig. 4-6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 34, fig. 4-6.
Schoharie grit Schoharie N. Y.

- 2423 $\frac{9255}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 1.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase, 1872

Goniophora rugosa Conrad (sp.)

- 2424 $\frac{9256}{1}$ TYPE Cypricardites rugosa Conrad. Annual report of the New York state geological survey. 1841. p. 53.
Goniophora rugosa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 297, pl. 42, fig. 8a.
Hamilton beds Ludlowville, Cayuga co. N. Y.
G. B. Simpson, coll. 1872
On slab with type of Microdon bellistriatus, Pal. N. Y. v. 5, pt 1, pl. 42, fig. 8b.

- 2425 $\frac{9256}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 4.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1850

- 2426 $\frac{9256}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 6.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

- 2427 $\frac{9256}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 7.
Hamilton beds Schoharie county, N. Y.

Goniophora speciosa Hall

- 2428 $\frac{9257}{1}$ TYPE Goniophora speciosa Hall. Transactions of the Albany institute. 1879. 10:17 (abstract).
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 26, 27.
Niagaran Waldron, Shelby co. Ind.

Goniophora subrecta Hall

- 2429 $\frac{9258}{1}$ TYPE Goniophora subrecta Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 304, pl. 42, fig. 14.
Ithaca beds Jefferson, Schoharie co. N. Y.
A. Sherwood, coll. 1873

- 2430 $\frac{9258}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 15.
Ithaca beds Charlotteville, Schoharie co. N. Y.
A. Sherwood, coll. 1871
- 2431 $\frac{9258}{3}$ TYPE *Goniophora chemungensis* (Vanuxem)
Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 19.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 19.
Ithaca beds Franklin, Delaware county, N. Y.
J. Hall, coll. 1862
- 2432 $\frac{9258}{4}$ TYPE Hall (in error). Paleontology of New York. 1883 v. 5, pt 1, plates and explanations, pl. 44, fig. 21.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 21.
Ithaca beds Central New York
- Goniophora trigona* Hall**
- 2433 $\frac{9259}{1}$ TYPE *Goniophora glabra* Hall (error for *G. glaucus*),
Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 9.
Goniophora trigona Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 302, pl. 42, fig. 12; pl. 44, fig. 9,
Ithaca beds Franklin, Delaware co. N. Y.
J. Hall, coll. 1862
- Goniophora truncata* Hall**
- 2434 $\frac{9260}{1}$ TYPE *Goniophora truncata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations pl. 44.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 9.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1872
- 2435 $\frac{9260}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 10.
Hamilton beds Pratt's falls N. Y.
G. B. Simpson, coll. 1871
- 2436 $\frac{9260}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 4.
Hamilton beds Delphi, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

GOSSELETTIA Barrois

Gosselettia triquetra (Conrad) Hall

- 2437 $\frac{9270}{1}$ TYPE *Pterinea triqueter* Conrad. Annual report of the New York state geological survey. 1838. p. 116.
Gosselettia triquetra Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 11, 13, 14.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 11, 13, 14.
 Hamilton beds Onondaga county, N. Y.
- 2438 $\frac{9270}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 12.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 12.
 Hamilton beds Onondaga county, N. Y.
- 2439 $\frac{9270}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 15.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 15.
 Hamilton beds Fultonham, Schoharie co. N. Y.
 J. W. Hall and G. B. Simpson, coll. 1869
- 2440 $\frac{9270}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 16.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 16.
 Hamilton beds Fultonham N. Y.
 J. W. Hall and G. B. Simpson, coll. 1869
- 2441 $\frac{9270}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 87, fig. 12.
 Hamilton beds Fultonham N. Y.
 J. W. Hall and G. B. Simpson, coll. 1869

GRAMMYSIA de Verneuil

Grammysia (sp.) Clarke

- 2442 $\frac{9280}{1}$ HYPOTYPE *Grammysia* (sp.) Clarke. Archivos do Museu nacional do Rio de Janeiro. 1899. 10:68, pl. 7, fig. 5.
 Maecurú sandstone (Lower Devonian) Rio Maecurú,
 Para, Brazil
 O. A. Derby, F. J. de Freitas and H. H. Smith, coll. 1876

Grammysia alveata (Conrad) Hall

- 2443 $\frac{9281}{1}$ TYPE *Posidonia alveata* Conrad. Annual report of the New York state geological survey. 1841. p. 53.
Grammysia alveata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 57, fig. 2.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 57, fig. 2.
 Hamilton beds Madison county, N. Y.
- 2444 $\frac{9281}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 1.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 1.
 Hamilton beds Leonardsville, Madison co. N. Y.
 F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
- 2445 $\frac{9281}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 2, 4.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 2-4.
 Hamilton beds Schoharie county, N. Y.
 J. Gebhard purchase, 1872
- 2446 $\frac{9281}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 6.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 6.
 Hamilton beds Leonardsville N. Y.
 F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
- 2447 $\frac{9281}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 7.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 7.
 Hamilton beds Leonardsville N. Y.
 F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
- 2448 $\frac{9281}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 8.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 8.
 Hamilton beds Leonardsville N. Y.
 F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Grammysia arcuata (Conrad) Hall

- 2449 $\frac{9282}{1}$ TYPE *Posidonia?* *arcuata* Conrad. Annual report of the New York state geological survey. 1841. p. 53.
Grammysia (*Leptodomus*) *arcuata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 1.
Grammysia arcuata Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 1.
 Hamilton beds Fabius, Onondaga co. N. Y.
 G. B. Simpson, coll. 1863
- 2450 $\frac{9282}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 2.
 Hall. Paleontology of New York. 1883. v. 5, pt 1, pl. 61, fig. 2.
 Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 2451 $\frac{9282}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 3.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 3.
 Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 2452 $\frac{9282}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 4.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 4.
 Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 2453 $\frac{9282}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 5.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 5.
 Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 2454 $\frac{9282}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 9.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 9.
 Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860

- 2455 $\frac{9282}{7}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 27.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

Grammysia (*Leptodomus*?) *arcuata* see
Grammysia arcuata

***Grammysia bisulcata* (Conrad) Hall**

- 2456 $\frac{9283}{1}$ TYPE *Pterinea bisulcata* Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Grammysia bisulcata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 1.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2457 $\frac{9283}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 3.

Hamilton beds Western New York

- 2458 $\frac{9283}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 4.

Hamilton beds Summit, Schoharie co. N. Y.

J. Hall, coll. 1844

- 2459 $\frac{9283}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 5.

Hamilton beds Central New York

- 2460 $\frac{9283}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 6.

Hamilton beds Madison county, N. Y.

- 2461 $\frac{9283}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 13.
Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857
- 2462 $\frac{9283}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 14.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 14.
Hamilton beds Summit N. Y.
C. Van Deloo, coll. 1862
- 2463 $\frac{9283}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 15.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 15.
Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Grammysia circularis Hall

- 2464 $\frac{9284}{1}$ TYPE *Grammysia circularis* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 51.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 58, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 58, fig. 13.
Chemung beds Nichols, Tioga co. N. Y.

Grammysia communis Hall

- 2465 $\frac{9285}{1}$ TYPE *Grammysia* (*Leptodomus*?) *hannibalensis* (Shumard) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 24.
Grammysia communis Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 378, pl. 61, fig. 24.
Chemung beds (drift) Belvidere, Allegany co. N. Y.
R. P. Whitfield, coll. 1869
- 2466 $\frac{9285}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 25.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 25.
Chemung beds (drift) Belvidere N. Y.
R. P. Whitfield, coll. 1869

- 2467 $\frac{9285}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 26.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 26.
Chemung beds Southwestern N. Y.
- 2468 $\frac{9285}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 27.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 27.
Chemung beds Little Genesee, Allegany co. N. Y.
C. Van Deloo, coll. 1863
- 2469 $\frac{9285}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 28.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 28.
Chemung beds Near Little Genesee N. Y.
C. Van Deloo, coll. 1863

Grammysia constricta Hall

- 2470 $\frac{9286}{1}$ TYPE *Grammysia* (*Leptodomus*?) *constricta* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 58.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 16.
Grammysia constricta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 16.
Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857
- 2471 $\frac{9286}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 18.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 18.
Hamilton beds Canandaigua lake N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2472 $\frac{9286}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 19.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 19.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857
Grammysia (*Leptodomus*?) *constricta*
see Grammysia constricta

Grammysia (Sphenomya) cuneata Hall

- 2473 $\frac{9287}{1}$ TYPE *Grammysia (Sphenomya) cuneata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 1.

Hamilton beds

Summit, Schoharie co. N. Y.

C. Van Deloo, coll. 1862

- 2474 $\frac{9287}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 2.

Hamilton beds

Apulia, Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

- 2475 $\frac{9287}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 4, 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 4, 5.

Hamilton beds

Summit N. Y.

C. Van Deloo, coll. 1862

- 2476 $\frac{9287}{4}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 8.

Hamilton beds

Summit N. Y.

J. Hall, coll. 1844

- 2477 $\frac{9287}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 9.

Hamilton beds

Emmons, Otsego co. N. Y.

J. W. Hall, coll. 1869

- 2478 $\frac{9287}{6}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 19.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

J. W. Hall and G. B. Simpson, coll. 1872

Grammysia elliptica Hall

- 2479 $\frac{9288}{1}$ TYPE? *Grammysia elliptica* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 53.

? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 58, fig. 1.

? Hall Paleontology of New York. 1885. v. 5, pt 1, pl. 58, fig. 1.

Ithaca (or Lower Chemung) beds Near Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2480 $\frac{9288}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 58, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 58, fig. 12.

Chemung beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Grammysia eriopia Hall

2481 $\frac{9289}{1}$ TYPE *Cardiomorpha eriopia* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 92.

Grammysia eriopia Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 8.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Grammysia globosa Hall

2482 $\frac{9290}{1}$ TYPE *Grammysia globosa* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 57.

Cardiomorpha cordatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 10, 13.

Grammysia globosa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 10, 13.

Hamilton beds Leonardsville, Madison co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Grammysia hannibalensis see *Grammysia communis*

Grammysia (*Leptodomus*?) *hannibalensis* see *Grammysia communis*

Grammysia lirata Hall

2483 $\frac{9291}{1}$ TYPE *Grammysia lirata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 57.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 59, fig. 6.

Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

2484 $\frac{9291}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 59, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 59, fig. 8.

Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2485 $\frac{9291}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 59, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 59, fig. 9.

Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

Grammysia magna Hall

2486 $\frac{9292}{1}$ TYPE *Grammysia magna* Hall. Preliminary notice
of lamellibranchiate shells, pt 2. 1870. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 56, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 56, fig. 4.

Hamilton beds Sherburne ? Chenango co. N. Y.

2487 $\frac{9292}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 56, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 56, fig. 7.

Hamilton beds Hamilton, Madison co. N. Y.
J. Hall, coll. 1844

2488 $\frac{9292}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 57, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 57, fig. 9.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

Grammysia nodocostata Hall

- 2489 $\frac{9293}{1}$ TYPE *Grammysia nodocostata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 55, fig. 2-4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 55, fig. 2-4.

Hamilton beds

Madison county, N. Y.

- 2490 $\frac{9293}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 55, fig. 10, 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 55, fig. 10, 11.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

J. W. Hall, coll. 1866

Grammysia obsoleta Hall

- 2491 $\frac{9294}{1}$ TYPE *Grammysia obsoleta* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 26.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

Grammysia parallela *see* *Pholadella parallela*

Grammysia praecursor Hall

- 2492 $\frac{9295}{1}$ TYPE *Grammysia praecursor* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 54.

Grammysia (*Leptodomus*?) *praecursor* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 1.

Schoharie grit

Schoharie N. Y.

Grammysia (*Leptodomus*?) *praecursor see* *Grammysia praecursor*

Grammysia subarcuata Hall

- 2493 $\frac{9296}{1}$ TYPE *Grammysia subarcuata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 61.

Grammysia (*Leptodomus*?) *subarcuata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 61, fig. 11.

Chemung beds

Portville, Cattaraugus co. N. Y.

R. P. Whitfield, coll. 1869

2494 $\frac{9296}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 61, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 61, fig. 18.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2495 $\frac{9296}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 61, fig. 19, 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 61, fig. 19, 22.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2496 $\frac{9296}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 61, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 61, fig. 20.

Ithaca beds ?

Grammysia (*Leptodomus*?) *subarcuata* *see*
Grammysia subarcuata

***Grammysia* ? *subnasuta* Hall**

2497 $\frac{9297}{1}$ TYPE *Edmondia subnasuta* Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 64, fig. 5.

Grammysia ? *subnasuta* Hall. Paleontology of
New York. 1885. v. 5, pt 1, pl. 64, fig. 5.

Chemung beds

Portville N. Y.

R. P. Whitfield, coll. 1869

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 64, fig. 6.

2498 $\frac{9297}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 64, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 64, fig. 6.

Chemung beds

Portville N. Y.

R. P. Whitfield, coll. 1869

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 64, fig. 5.

Grammysia undata Hall

- 2499 $\frac{9298}{1}$ TYPE *Edmondia undata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 30.

Grammysia undata Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 30.

Chemung beds

Portville N. Y.

C. Van Deloo, coll. 1864

- 2500 $\frac{9298}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 21.

Chemung beds

Portville N. Y.

C. Van Deloo, coll. 1864

Inoceramus chemungensis see *Mytilarca* (Plethomytilus) *chemungensis*

Inoceramus oviformis see *Mytilarca* (Plethomytilus) *oviformis*

LEDA Schumacher

Leda brevirostris Hall

- 2501 $\frac{9300}{1}$ TYPE *Leda? brevirostris* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 6.

Leda (*Nuculana*) *brevirostris?* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 40.

Leda brevirostris Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 40.

Chemung beds

Franklin, Delaware co. N. Y.

J. Hall, coll. 1862

On slab with type of *L. diversa*, Pal. N. Y. v. 5, pt 1, pl. 47, fig. 36.

- 2502 $\frac{9300}{2}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 41.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 41.

Chemung beds

Franklin N. Y.

J. Hall, coll. 1862

Leda (*Nuculana*) *brevirostris?* see *Leda brevirostris*

Leda (*Nuculana*) *curta* see *Leda obscura*

Leda diversa Hall

- 2503 $\frac{9301}{1}$ TYPE *Leda* (*Nuculana*) *diversa* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 32.
Leda diversa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 32.
 Hamilton beds Moravia, Cayuga co. N. Y.
 G. B. Simpson, coll. 1863
- 2504 $\frac{9301}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 33.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 33.
 Hamilton beds Moravia N. Y.
 G. B. Simpson, coll. 1863
- 2505 $\frac{9301}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 34.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 34.
 Hamilton beds Summit, Schoharie co. N. Y.
 C. Van Deloo, coll. 1862
- 2506 $\frac{9301}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 35.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 35.
 Hamilton beds Skaneateles lake, N. Y.
 G. B. Simpson, coll. 1863
- 2507 $\frac{9301}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 36.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 36.
 Chemung beds Franklin N. Y.
 J. Hall. coll. 1862
 On slab with type of *L. brevirostris*, Pal. N. Y. v. 5, pt 1, pl. 47, fig. 40.
- 2508 $\frac{9301}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 37.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 37.
 Chemung beds Franklin N. Y.
 J. Hall, coll. 1862
Leda (*Nuculana*) *diversa* *see* *Leda diversa*

Leda obscura Hall.

2509 $\frac{2302}{1}$ TYPE *Leda* (*Nuculana*) *curta* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 48.

Leda obscura Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 331, pl. 47, fig. 48.

Ithaca beds? (drift) Fultonham, Schoharie co. N. Y.

W. M. Gabb, coll. 1857

Leda (*Nuculana*) *perstriata* *see* *Leda rostellata*

Leda rostellata Conrad (sp.)

2510 $\frac{2303}{1}$ TYPE *Nuculites rostellata* Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Leda (*Nuculana*) *perstriata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 42.

Leda rostellata Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 42.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

2511 $\frac{2303}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 43.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 43.

Hamilton beds

Norton's landing, N. Y.

H. H. Smith, coll. 1871

2512 $\frac{2303}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 44.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 44.

Hamilton beds

Norton's landing, N. Y.

H. H. Smith, coll. 1871

2513 $\frac{2303}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 45.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 45.

Hamilton beds

Norton's landing, N. Y.

H. H. Smith, coll. 1871

- 2514 $\frac{9303}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 46, 47.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 46, 47.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

LEPTODESMA Hall

Leptodesma ?

- 2515 $\frac{9310}{1}$ TYPE Leptodesma ? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 4.
Chemung (?) beds Salamanca, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Leptodesma agassizi Hall

- 2516 $\frac{9311}{1}$ TYPE Leptodesma agassizi Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 182, pl. 89, fig. 17.
Chemung beds Along Chemung river above Elmira N.Y.
A. Sherwood, coll. 1871
On slab with type of *L. spinigerum*, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 1, and type of *L. billingsi*, pl. 89, fig. 12.
- 2517 $\frac{9311}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 18.
Chemung beds Chemung river, between Elmira and Waverly N. Y.
A. Sherwood, coll. 1871
- 2518 $\frac{9311}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 19.
Chemung beds Along Chemung river above Elmira N. Y.
A. Sherwood, coll. 1871
On slab with type of *L. spinigerum*, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 1.

Leptodesma alatum Hall

- 2519 $\frac{9312}{1}$ TYPE Leptodesma alatum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 218, pl. 90, fig. 26.
Chemung beds Canton, Bradford co. Pa.
A. Sherwood, coll. 1871
- 2520 $\frac{9312}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 27.
Chemung beds Canton Pa.
A. Sherwood, coll. 1871

Leptodesma arciforme Hall

- 2521 $\frac{9313}{1}$ TYPE *Leptodesma arciforme* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 229, pl. 91, fig. 12.
Upper Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Leptodesma becki Hall

- 2522 $\frac{9314}{1}$ TYPE *Leptodesma becki* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 4.
Chemung beds Portville, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Leptodesma billingsi Hall

- 2523 $\frac{9315}{1}$ TYPE *Leptodesma billingsi* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 192, pl. 89, fig. 12.
Chemung (?) beds Panama, Chautauqua co. N. Y.
J. Hall, coll. 1870
- 2524 $\frac{9315}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 13.
Chemung beds Along Chemung river above Elmira N. Y.
A. Sherwood, coll. 1871

On slab with type of *L. spinigerum*, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 1; and *L. agassizi*, pl. 89, fig. 17.

- 2525 $\frac{9315}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 14.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1870
- 2526 $\frac{9315}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 15.
Chemung beds Between Corning and Elmira N. Y.
A. Sherwood, coll. 1871

Leptodesma biton Hall

- 2527 $\frac{9316}{1}$ TYPE *Leptodesma biton* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 222, pl. 91, fig. 1.
Upper Chemung beds South of Smethport Pa.
C. Van Deloo, coll. 1870

Leptodesma cadmus Hall

- 2528 $\frac{9317}{1}$ TYPE *Leptodesma cadmus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 201, pl. 90, fig. 6.
Chemung beds Smithfield, Bradford co. Pa.

A. Sherwood, coll. 1871

- 2529 $\frac{9317}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 7.

Upper Chemung beds

Lindley township,
Steuben co. N. Y.

A. Sherwood, coll. 1871

Leptodesma clitus Hall

- 2530 $\frac{9318}{1}$ TYPE *Leptodesma clitus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 210, pl. 90, fig. 21.
Chemung beds. Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

Leptodesma corydon Hall

- 2531 $\frac{9319}{1}$ TYPE *Leptodesma corydon* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 212, pl. 90, fig. 22.
Chemung beds Mansfield Pa.

A. Sherwood, coll. 1871

Leptodesma creon Hall

- 2532 $\frac{9320}{1}$ TYPE *Leptodesma creon* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 202, pl. 90, fig. 12.
Upper Chemung beds Lawrenceville, Tioga co. Pa.

A. Sherwood, coll. 1871

- 2533 $\frac{9320}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 13.

Upper Chemung beds

Lawrenceville Pa.

A. Sherwood, coll. 1871

Leptodesma curvatum Hall

- 2534 $\frac{9321}{1}$ TYPE *Leptodesma curvatum* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 5.

Upper Chemung beds

McKean county, Pa.

A. Sherwood, coll. 1871

Leptodesma demus Hall

- 2535 $\frac{9322}{1}$ TYPE *Leptodesma demus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 203, pl. 90, fig. 15.

Chemung beds

Lawrenceville, Tioga co. Pa.

A. Sherwood, coll. 1871

- 2536 $\frac{9322}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 90, fig. 16.
Chemung beds Lawrenceville Pa.
A. Sherwood, coll. 1871

Leptodesma disparile Hall

- 2537 $\frac{9323}{1}$ TYPE *Leptodesma disparile* Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 25, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 25, fig. 2.
Upper Chemung beds Between Bradford and Farmers
Valley, McKean co. Pa.
A. Sherwood, coll. 1871
On slab with type of pl. 89, fig. 24.
- 2538 $\frac{9323}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 25, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 25, fig. 3.
Upper Chemung beds Between Bradford and Farmers
Valley Pa.
A. Sherwood, coll. 1871
- 2539 $\frac{9323}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 25, fig. 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 25, fig. 4.
Upper Chemung beds Between Bradford and Farmers
Valley Pa.
A. Sherwood, coll. 1871
- 2540 $\frac{9323}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 89, fig. 23.
Upper Chemung beds Between Bradford and Farmers
Valley Pa.
A. Sherwood, coll. 1871
- 2541 $\frac{9323}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 89, fig. 24.
Upper Chemung beds Between Bradford and
Farmers Valley Pa.
A. Sherwood, coll. 1871
On slab with type of pl. 25, fig. 2.

Leptodesma extenuatum Hall

- 2542 $\frac{9324}{1}$ TYPE *Leptodesma extenuatum* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 207, pl. 90, fig. 18.
Chemung beds Mansfield, Tioga co. N. Y.
A. Sherwood, coll. 1871

Leptodesma hector Hall

- 2543 $\frac{9325}{1}$ TYPE *Leptodesma hector* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 209, pl. 90, fig. 19.
Upper Chemung beds Canton, Bradford co. Pa.
A. Sherwood, coll. 1871
- 2544 $\frac{9325}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 20.
Upper Chemung beds Canton Pa.
A. Sherwood, coll. 1871

Leptodesma jason Hall

- 2545 $\frac{9326}{1}$ TYPE *Leptodesma jason* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 213, pl. 91, fig. 4.
Chemung beds Canton Pa.
A. Sherwood, coll. 1871
- 2546 $\frac{9326}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 91, fig. 5.
Upper Chemung beds Seeley creek, Tioga co. Pa.
A. Sherwood, coll. 1871
- 2547 $\frac{9326}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 91, fig. 6.
Upper Chemung beds Seeley creek, Pa.
A. Sherwood, coll. 1871

Leptodesma lepidum Hall

- 2548 $\frac{9327}{1}$ TYPE *Leptodesma lepidum* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 16.
Chemung beds Mansfield N. Y.
A. Sherwood, coll. 1871

Leptodesma lesleyi Hall

- 2549 $\frac{9328}{1}$ TYPE *Leptodesma lesleyi* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 223, pl. 91, fig. 7.
Upper Chemung beds Auburn township, Susquehanna co. Pa.
A. Sherwood, coll. 1871

Leptodesma lichas Hall

- 2550 $\frac{9329}{1}$ TYPE *Leptodesma lichas* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 37.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 37; pl. 91, fig. 20.

Chemung beds Belmont, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

On slab with type of *Pterinopecten neptunus*, Pal. N. Y. v. 5, pt 1, pl. 8, fig. 6.

Leptodesma longispinum Hall

- 2551 $\frac{9330}{1}$ HYPOTYPE *Avicula longispina* Hall. Geology of New York; report on the 4th district. 1843. p. 262.

Leptodesma longispinum Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 2.

Chemung beds Between Corning and Elmira N. Y.

A. Sherwood, coll. 1871

- 2552 $\frac{9330}{2}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 3.

Chemung beds Between Corning and Elmira N. Y.

A. Sherwood, coll. 1871

- 2553 $\frac{9330}{3}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 4.

Chemung beds Elmira N. Y.

C. Van Deloo, coll. 1870

Leptodesma loxias Hall

- 2554 $\frac{9331}{1}$ TYPE *Leptodesma loxias* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 204, pl. 90, fig. 14.

Chemung beds Lawrenceville Pa.

A. Sherwood, coll. 1871

Leptodesma lysander Hall

- 2555 $\frac{9332}{1}$ TYPE *Leptodesma lysander* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 34.

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1871

Leptodesma maclurii Hall

- 2556 $\frac{9333}{1}$ TYPE *Leptodesma maclurii* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 8; pl. 91, fig. 14.

Upper Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

- 2557 $\frac{9333}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 13.

Upper Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

Leptodesma matheri Hall

- 2558 $\frac{9334}{1}$ TYPE *Leptodesma matheri* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 8.

Upper Chemung beds

Bradford, McKean co. Pa.

R. P. Stevens, donor

- 2559 $\frac{9334}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 9.

Upper Chemung beds

Bradford Pa.

R. P. Stevens, donor

- 2560 $\frac{9334}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 10.

Upper Chemung beds

Bradford Pa.

R. P. Stevens, donor

- 2561 $\frac{9334}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 25.

Upper Chemung beds

Bradford Pa.

R. P. Stevens, donor

On slab with type of *Camarotoechia contracta*, Pal. N. Y. v. 4, pl. 55, fig. 27.

Leptodesma medon Hall

2562 $\frac{9335}{1}$ TYPE *Leptodesma medon* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 197, pl. 90, fig. 1.

Upper Chemung beds Lawrenceville, Tioga co. Pa.

A. Sherwood, coll. 1871

2563 $\frac{9335}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 2.

Upper Chemung beds Lawrenceville Pa.

A. Sherwood, coll. 1871

2564 $\frac{9335}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 4.

Upper Chemung beds Lawrenceville Pa.

A. Sherwood, coll. 1871

Leptodesma mentor? Hall

2565 $\frac{9336}{1}$ TYPE? *Leptodesma mentor?* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 205, pl. 23, fig. 15.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

2566 $\frac{9336}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 5.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1878

Leptodesma mortoni Hall

2567 $\frac{9337}{1}$ TYPE *Leptodesma mortoni* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 29.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 29.

Chemung beds Portville, Cattaraugus co. N. Y.

R. P. Whitfield, coll. 1869

On slab with type of pl. 21, fig. 31; pl. 89, fig. 9.

2568 $\frac{9337}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 31.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 31; pl. 89, fig. 9.

Chemung beds Portville N. Y.

R. P. Whitfield, coll. 1869

On slab with type of pl. 21, fig. 29.

2569 $\frac{9337}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1; plates and explanations, pl. 21, fig. 32.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 32; pl. 89, fig. 10.

Chemung beds

Portville N. Y.

R. P. Whitfield, coll. 1869

2570 $\frac{9337}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 11.

Chemung beds

Little Genesee, Allegany co. N. Y.

C. Van Deloo, coll. 1863

Leptodesma mytiliforme Hall

2571 $\frac{9338}{1}$ TYPE *Leptodesma mytiliforme* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 91, fig. 23.

Upper Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

Leptodesma nereus Hall

2572 $\frac{9339}{1}$ TYPE *Leptodesma nereus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 217, pl. 90, fig. 31.

Upper Chemung beds

Canton, Bradford co. Pa.

A. Sherwood, coll. 1871

2573 $\frac{9339}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 32.

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1871

2574 $\frac{9339}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 33.

Upper Chemung beds

Canton Pa.

A. Sherwood, coll. 1871

Leptodesma orcus Hall

2575 $\frac{9340}{1}$ TYPE *Leptodesma orcus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 215, pl. 90, fig. 23.

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1871

Leptodesma orodes Hall

2576 $\frac{9341}{1}$ TYPE *Leptodesma orodes* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 6.

Upper Chemung beds On road from Olean N. Y. to
Smethport Pa.

C. Van Deloo, coll. 1870

2577 $\frac{9341}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 9; pl. 90, fig. 8.

Chemung beds On road from Olean N. Y. to
Smethport Pa.

C. Van Deloo, coll. 1870

2578 $\frac{9341}{3}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 10.

? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 10.

Chemung beds On road from Olean N. Y. to
Smethport Pa.

C. Van Deloo, coll. 1870

Leptodesma orus Hall

2579 $\frac{9342}{1}$ TYPE *Leptodesma orus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 219, pl. 90, fig. 30.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Leptodesma patulum Hall

2580 $\frac{9343}{1}$ TYPE *Leptodesma patulum* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 226, pl. 91, fig. 10.

Upper Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma potens Hall

2581 $\frac{9344}{1}$ TYPE *Leptodesma potens* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 21.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 21.

Upper Chemung beds East Randolph,
Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

- 2582 $\frac{9344}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 30.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 30.
Chemung beds Portville, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869
- 2583 $\frac{9344}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 11.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 11.
Upper Chemung beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 2584 $\frac{9344}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 12.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 12.
Upper Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863
- 2585 $\frac{9344}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 19.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 19.
Upper Chemung beds Portville N. Y.
R. P. Whitfield, coll. 1869
- 2586 $\frac{9344}{6}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 20.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 20.
Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 2587 $\frac{9344}{7}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 7.
Upper Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863
- Leptodesma potens var. juvenis** Hall
- 2588 $\frac{9345}{1}$ TYPE *Leptodesma potens* var. *juvenis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 16.
Chemung beds East Randolph N. Y.
C. Van Deloo, coll. 1863

Leptodesma propinquum Hall

- 2589 $\frac{9346}{1}$ TYPE *Leptodesma propinquum* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 231, pl. 91, fig. 16.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma quadratum Hall

- 2590 $\frac{9347}{1}$ TYPE *Leptodesma quadratum* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 233, pl. 91, fig. 15.
Upper Chemung beds Lindley township,
Steuben co. N. Y.
A. Sherwood, coll. 1871

Leptodesma robustum Hall

- 2591 $\frac{9348}{1}$ TYPE *Leptodesma robustum* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 8.
Middle Chemung beds Painted Post, Steuben co. N. Y.

Leptodesma rogersi Hall

- 2592 $\frac{9349}{1}$ TYPE *Leptodesma rogersi* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 1.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 2593 $\frac{9349}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 2.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 2594 $\frac{9349}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 3.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

- 2595 $\frac{9349}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 4.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 2596 $\frac{9349}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 5.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 5.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 2597 $\frac{9349}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 6.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 2598 $\frac{9349}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 7.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 7.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 2599 $\frac{9349}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 8.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 8.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 2600 $\frac{9349}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 9.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 9.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Leptodesma rude Hall

- 2601 $\frac{9350}{1}$ TYPE *Leptodesma rude* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 12; pl. 91, fig. 3.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

Leptodesma shumardi Hall

2602 $\frac{9351}{1}$ TYPE *Leptodesma shumardi* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 180, pl. 89, fig. 5.

Chemung beds Between Corning and Elmira N. Y.

A. Sherwood, coll. 1871

2603 $\frac{9351}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 6.

Chemung beds Between Corning and Elmira N. Y.

A. Sherwood, coll. 1871

Leptodesma sociale Hall

2604 $\frac{9352}{1}$ TYPE *Leptodesma sociale* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 24.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 24.

Chemung beds Conewango, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

On slab with types of pl. 21, fig. 25-27.

2605 $\frac{9352}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 25.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 25.

Chemung beds Conewango N. Y.

C. Van Deloo, coll. 1863

On slab with types of pl. 21, fig. 24, 26, 27.

2606 $\frac{9352}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 26.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 26.

Chemung beds Conewango N. Y.

C. Van Deloo, coll. 1863

On slab with types of pl. 21, fig. 24, 25, 27.

2607 $\frac{9352}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 27.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 27.

Chemung beds Conewango N. Y.

C. Van Deloo, coll. 1863

On slab with types of pl. 21, fig. 24-26.

- 2608 $\frac{9352}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 28.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 28.

Chemung beds

Conewango N. Y.

C. Van Deloo, coll. 1863

Leptodesma spinigerum Conrad (sp.)

- 2609 $\frac{9353}{1}$ HYPOTYPE *Avicula spinigera* Hall. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:237.

Leptodesma spinigerum Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 1.

Chemung beds Along Chemung river above Elmira N. Y.

A. Sherwood, coll. 1871

On slab with type of *L. agassizi*, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 17.

Leptodesma stevensi Hall (*emend.*)

- 2610 $\frac{9354}{1}$ TYPE *Leptodesma stephani* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 194, pl. 89, fig. 20.

Upper Chemung beds

Bradford Pa.

R. P. Stevens, donor

- 2611 $\frac{9354}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 21.

Upper Chemung beds

Bradford Pa.

R. P. Stevens, donor

- 2612 $\frac{9354}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 22.

Upper Chemung beds

Bradford Pa.

R. P. Stevens, donor

Leptodesma truncatum Hall

- 2613 $\frac{9355}{1}$ TYPE *Leptodesma truncatum* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 211, pl. 90, fig. 24.

Chemung beds

Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

- 2614 $\frac{9355}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 25.

Chemung beds

Mansfield Pa.

A. Sherwood, coll. 1871

Leptodesma umbonatum *var. depressum* Hall

- 2615 $\frac{9356}{1}$ TYPE *Leptodesma umbonatum* *var. depressum* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 14; pl. 90, fig. 10.

Upper Chemung beds

Napoli Center,

Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

Lima glaber *see* *Crenipecten glaber*?

Lima macroptera *see* *Limoptera macroptera*

Lima rugaestriata *see* *Aviculopecten rugaestriatus*

LIMOPTERA Hall**Limoptera curvata** Hall

- 2616 $\frac{9360}{1}$ TYPE *Limoptera curvata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 18.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 28, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 28, fig. 2.

Hamilton beds

Madison county, N. Y.

Limoptera ? limaeformis Hall

- 2617 $\frac{9361}{1}$ TYPE *Avicula limaeformis* Hall. Paleontology of New York. 1852. 2:332, pl. 75, fig. 6a.

Coralline (Cobleskill) limestone Schoharie N. Y.

- 2618 $\frac{9361}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 75, fig. 6b.

Coralline (Cobleskill) limestone Schoharie N. Y.

Limoptera macroptera (Conrad) Hall

- 2619 $\frac{9362}{1}$ TYPE *Lima macroptera* Conrad. Annual report of the New York state geological survey. 1838. p. 117.

Limoptera macroptera Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 14.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

- 2620 $\frac{9362}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 27, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 27, fig. 3.
Hamilton beds Lebanon, Madison co. N. Y.
Geological survey collection
- 2621 $\frac{9362}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 29, fig. 3, 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 29, fig. 3, 4.
Hamilton beds Madison county, N. Y.
- 2622 $\frac{9362}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 92, fig. 4.
Hamilton beds Delphi N. Y.
C. Van Deloo and H. H. Smith, coll. 1873
- 2623 $\frac{9362}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 92, fig. 5, 6.
Hamilton beds Pratt's falls, N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 2624 $\frac{9362}{6}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 92, fig. 7.
Hamilton beds Schoharie county, N. Y.
- 2625 $\frac{9362}{7}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 92, fig. 8.
Hamilton beds Delphi N. Y.
C. Van Deloo and H. H. Smith, coll. 1873
- 2626 $\frac{9362}{8}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 92, fig. 9.
Hamilton beds Pratt's falls, N. Y.
G. B. Simpson, coll. 1872

Limoptera obsoleta Hall

- 2627 $\frac{9363}{1}$ TYPE? *Limoptera obsoleta*? Hall. Preliminary
notice of lamellibranchiate shells, pt 2. 1870. p. 18.
? Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 26, fig. 10.
? Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 26, fig. 10.
Hamilton beds Cazenovia N. Y.
J. Hall, coll. 1862

- 2628 $\frac{9363}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 92, fig. 10.
 Hamilton beds Pratt's falls, N. Y.
 J. W. Hall and G. B. Simpson, coll. 1872

LIOPTERIA Hall

Liopteria bigsbyi Hall

- 2629 $\frac{9370}{1}$ TYPE *Leiopteria bigsbyi* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 11.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 11.

Hamilton beds Schoharie county, N. Y.

- 2630 $\frac{9370}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 13.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 13.

Hamilton beds Fultonham, Schoharie co. N. Y.

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 20, fig. 14, 15;
 and *Protomya oblonga*, pl. 63, fig. 21.

- 2631 $\frac{9370}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 14.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 14.

Hamilton beds Fultonham N. Y.

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 20, fig. 13, 15;
 and *Protomya oblonga*, pl. 63, fig. 21.

- 2632 $\frac{9370}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 15.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 15.

Hamilton beds Fultonham N. Y.

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 20, fig. 13, 14;
 and *Protomya oblonga*, pl. 63, fig. 21.

Liopteria chemungensis Vanuxem (sp.)

- 2633 $\frac{9371}{1}$ TYPE *Avicula chemungensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 182, fig. 3.

Leiopteria nitida Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 17, 18.

Leiopteria chemungensis Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 172, pl. 22, fig. 17, 18.
Chemung beds 8 miles north of Binghamton N. Y.
L. Vanuxem, coll.

***Leiopteria conradi* Hall**

- 2634 $\frac{9372}{1}$ TYPE *Leiopteria conradi* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 1.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2635 $\frac{9372}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 2.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2636 $\frac{9372}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 1.
Hamilton beds Leonardsville, Madison co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
- 2637 $\frac{9372}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 2.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 2638 $\frac{9372}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 4.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

***Leiopteria dekayi* Hall**

- 2639 $\frac{9373}{1}$ TYPE *Leiopteria dekayi* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 1.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864

- 2640 $\frac{9373}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 16.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864
- 2641 $\frac{9373}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 17.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 17.
Hamilton beds Oaksville, Otsego co. N. Y.
- 2642 $\frac{9373}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 18.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 18.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864
- 2643 $\frac{9373}{5}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 5.
Hamilton beds Fultonham, Schoharie co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1869
- 2644 $\frac{9373}{6}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 6.
Hamilton beds Schoharie co. N. Y.
J. Gebhard purchase, 1872
- 2645 $\frac{9373}{7}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 7, 10.
Hamilton beds Delphi falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871
- 2646 $\frac{9373}{8}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 8.
Hamilton beds Fultonham N. Y.
J. Hall, coll. 1844
- 2647 $\frac{9373}{9}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 9.
Hamilton beds Fultonham N. Y.
J. W. Hall and G. B. Simpson, coll. 1869
- Liopteria gabbi** Hall
- 2648 $\frac{9374}{1}$ TYPE *Liopteria gabbi* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 169, pl. 88, fig. 14.
Hamilton beds Cayuga lake, N. Y.
J. W. Hall, coll. 1866

Liopteria greeni Hall

- 2649 $\frac{9375}{1}$ TYPE *Leiopteria greeni* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 9.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 2650 $\frac{9375}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 21.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 2651 $\frac{9375}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 22.

Hamilton beds

Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

Liopteria laevis Hall

- 2652 $\frac{9376}{1}$ HYPOTYPE *Avicula laevis* Hall. Geology of New York; report on the 4th district. 1843. p. 181.

Leiopteria laevis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 5.

Marcellus shale

Alden, Erie co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2653 $\frac{9376}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 6.

Marcellus shale

Littleville, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2654 $\frac{9376}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 7.

Marcellus shale

Alden N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2655 $\frac{9376}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 8.

Marcellus shale

Littleville N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2656 $\frac{9376}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 11.

Marcellus shale

Littleville N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2657 $\frac{9376}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 5.

Hamilton beds

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Liopteria leai Hall

- 2658 $\frac{9377}{1}$ **TYPE** *Leiopteria leai* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 168, pl. 88, fig. 24.

Hamilton beds

Schoharie county, N. Y.

J. Gebhard purchase, 1872

- 2659 $\frac{9377}{2}$ **TYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 25.

Hamilton beds

Schoharie county, N. Y.

J. Gebhard purchase, 1872

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 88, fig. 24.

Leiopteria nitida *see* *Leiopteria chemungensis*

Liopteria oweni Hall

- 2660 $\frac{9378}{1}$ **TYPE** *Leiopteria oweni* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 10.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Liopteria rafinesquii Hall

- 2661 $\frac{9379}{1}$ **TYPE** *Leiopteria rafinesquii* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 20, fig. 6.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2662 $\frac{9379}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 20, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 20, fig. 7.

Hamilton beds

Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2663 $\frac{9379}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 88, fig. 27.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2664 $\frac{9379}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 88, fig. 28.

Hamilton beds

Leonardsville, Madison co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

***Liopteria sayi* Hall**

2665 $\frac{9380}{1}$ TYPE *Liopteria sayi* Hall. Paleontology of New
York. 1884. v. 5, pt 1, p. 162, pl. 88, fig. 15.

Hamilton beds

Cayuga lake, N. Y.

A. Sherwood, coll. 1871

2666 $\frac{9380}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 88, fig. 16.

Hamilton beds

Livingston county, N. Y.

2667 $\frac{9380}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 88, fig. 17.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2668 $\frac{9380}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 88, fig. 18.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2669 $\frac{9380}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 88, fig. 19.

Hamilton beds

Leonardsville, Madison co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

- 2670 $\frac{9380}{6}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 20.
Hamilton beds Breakabeen, Schoharie co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

Liopteria torreyi Hall

- 2671 $\frac{9381}{1}$ TYPE *Leiopteria torreyi* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 174, pl. 22, fig. 7.
Chemung (?) beds Panama, Chautauqua co. N. Y.
J. Hall, coll. 1870

- 2672 $\frac{9381}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 11.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1871

Liopteria troosti Hall

- 2673 $\frac{9382}{1}$ TYPE *Leiopteria troosti* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 167, pl. 88, fig. 12, 13.
Hamilton beds Schoharie county, N. Y.
J. Gebhard purchase.

LUCINA Bruguière

Lucina (?) livonensis Clarke

- 2674 $\frac{9390}{1}$ TYPE *Lucina (?) livonensis* Clarke. 13th annual report of the New York state geologist. 1894. 1: 174, pl. 4, fig. 12.
Marcellus shale Livonia salt shaft, Livonia,
Livingston co. N. Y.
D. D. Luther, coll. 1891

LUNULICARDIUM Münster

Lunulicardium curtum Hall

- 2675 $\frac{9400}{1}$ TYPE *Lunulicardium curtum* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 97.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 18, 19, 23.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 18, 19, 23.
Hamilton beds Tully, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863
- 2676 $\frac{9400}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 20, 21.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 20, 21.
Hamilton beds Cayuga lake, N. Y.
J. W. Hall, coll. 1866

- 2677 $\frac{9400}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 22.

Marcellus shale

Alden, Erie co. N. Y.

C. A. White and C. Van Deloo, coll 1860

Lunulicardium fragile Hall

- 2678 $\frac{9401}{1}$ HYPOTYPE *Avicula fragilis* Hall. Geology of New York; report on the 4th district. 1843. p. 222.

Lunulicardium fragile Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 1.

Genesee shale

Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1864

- 2679 $\frac{9401}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 2.

Genesee shale

Darien N. Y.

C. Van Deloo, coll. 1864

- 2680 $\frac{9401}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 3.

Hamilton beds

Vincent N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

- 2681 $\frac{9401}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 6.

Genesee shale

Bristol Center, Ontario co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

- 2682 $\frac{9401}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 8.

Genesee shale

Bristol Center N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

- 2683 $\frac{9401}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 9.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 9.
Genesee shale Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 2684 $\frac{9401}{7}$ **HYPOTYPE** Hall Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 11.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 11.
Genesee shale Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- Lunulicardium? lineolatum** Clarke
- 2685 $\frac{9402}{1}$ **TYPE** Lunulicardium (?) lineolatum Clarke. 13th annual report of the New York state geologist. 1894. 1: 175, pl. 3, fig. 2.
Upper Hamilton shale Livonia salt shaft,
Livonia, Livingston co. N. Y.
D. D. Luther, coll. 1891
- Lunulicardium livoniae** Clarke
- 2686 $\frac{9403}{1}$ **TYPE** Lunulicardium livoniae Clarke. 13th annual report of the New York state geologist. 1894. 1: 175, pl. 4, fig. 11.
Hamilton shale Livonia salt shaft, Livonia N. Y.
D. D. Luther, coll. 1891
- Lunulicardium marcellense** Vanuxem (sp.)
- 2687 $\frac{9404}{1}$ **HYPOTYPE** Cypricardites marcellensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146.
Lunulicardium marcellense Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 15.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 15.
Marcellus shale Cherry Valley, Otsego co. N. Y.
- 2688 $\frac{9404}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 16.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 16.
Marcellus shale Cherry Valley N. Y.

Lunulicardium ornatum Hall

- 2689 $\frac{9405}{1}$ **HYPOTYPE** *Pinnopsis ornatus* Hall. Geology of New York; report on the 4th district. 1843. p. 244.

Lunulicardium ornatum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 25.

Chemung beds Elmira N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 2690 $\frac{9405}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 27.

Chemung beds Elmira N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Lunulicardium rude Hall

- 2691 $\frac{9406}{1}$ **TYPE** *Lunulicardium rude* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 17.

Marcellus shale (Agoniatite limestone) Cherry Valley N. Y.

LYRIOPECTEN Hall**Lyriopecten dardanus** Hall

- 2692 $\frac{9420}{1}$ **TYPE: PLASTOTYPE** *Lyriopecten dardanus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 1, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 5.

Onondaga limestone Leroy N. Y.

C. A. White, coll. 1860

Lyriopecten fasciatus Hall

- 2693 $\frac{9421}{1}$ **TYPE** *Pernopecten fasciculatus* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 200.

Lyriopecten fasciatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 55, pl. 9, fig. 10, 11.

Chemung beds Leon, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

Lyriopecten interradiatus Hall

- 2694 $\frac{9422}{1}$ TYPE *Lyriopecten interradiatus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 44, pl. 82, fig. 5.

Hamilton beds

Schoharie county, N. Y.

J. Gebhard purchase

Lyriopecten macrodontus Hall

- 2695 $\frac{9423}{1}$ TYPE: PLASTOTYPE *Lyriopecten macrodonta* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 193.

Lyriopecten macrodontus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 46, pl. 8, fig. 9.

Hamilton beds

Hamilton, Madison co. N. Y.

- 2696 $\frac{9423}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 10.

Hamilton beds

Hamilton N. Y.

Lyriopecten magnificus Hall

- 2697 $\frac{9424}{1}$ TYPE: PLASTOTYPE *Lyriopecten magnificus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 8.

Upper Chemung beds

Montrose, Susquehanna co. Pa.

Lyriopecten orbiculatus Hall

- 2698 $\frac{9425}{1}$ HYPOTYPE *Avicula orbiculata* Hall. Geology of New York; report on the 4th district. 1843. p. 202.

Lyriopecten orbiculatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 4, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 4, fig. 3.

Hamilton beds

Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2699 $\frac{9425}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v 5, pt 1, plates and explanations, pl. 4, fig. 6.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 4, fig. 6.
 Hamilton beds Moscow, Livingston co. N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 2700 $\frac{9425}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 3.
 Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860

Lyriopecten priamus Hall

- 2701 $\frac{9426}{1}$ **TYPE** *Lyriopecten priamus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 10, fig. 2.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 10, fig. 2.
 Chemung beds Franklin, Delaware co. N. Y.
- 2702 $\frac{9426}{2}$ **TYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 6.
 Chemung beds Franklin N. Y.

Lyriopecten solox Hall

- 2703 $\frac{9427}{1}$ **TYPE** *Lyriopecten solox* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 5.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 5.
 Chemung (?) beds Panama, Chautauqua co. N. Y.

Lyriopecten tricostatus Vanuxem (sp.)

- 2704 $\frac{9428}{1}$ **HYPOTYPE** *Avicula tricostata* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 179.
Lyriopecten tricostatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 4, fig. 11.
 Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 4, fig. 11.
 Hamilton beds Near Summit, Schoharie co. N. Y.
 C. Van Deloo, coll. 1862

- 2705 $\frac{9428}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 10, fig. 10.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 10, fig. 10.
Chemung beds Barker station, Broome co. N. Y.

MACRODON Lycett**Macrodon chemungensis Hall**

- 2706 $\frac{9440}{1}$ **TYPE** *Macrodon chemungensis* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 14.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 12.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 12.
Chemung beds Meadville, Crawford co. Pa.
C. Van Deloo, coll. 1863
- 2707 $\frac{9440}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 16.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 16.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

Macrodon hamiltoniae Hall

- 2708 $\frac{9441}{1}$ **TYPE** *Macrodon hamiltoniae* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 13.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 2.
Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863
- 2709 $\frac{9441}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 3.
Hamilton beds South of Cardiff, Onondaga co. N. Y.
G. B. Simpson, coll. 1863
- 2710 $\frac{9441}{3}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 4.
Hamilton beds Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

- 2711 $\frac{9441}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 5.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 2712 $\frac{9441}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 6.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863
- 2713 $\frac{9441}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 9.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 9.
Hamilton beds Cayuga lake, N. Y.
J. W. Hall, coll. 1866

MEGAMBONIA Hall

Megambonia (?) aviculoidea Hall

- 2714 $\frac{9450}{1}$ TYPE Megambonia aviculoidea Hall. Paleontology of New York. 1859. 3:274, pl. 49A, fig. 8.
Helderbergian The Helderberg, N. Y.

Megambonia bellistriata Hall

- 2715 $\frac{9451}{1}$ TYPE: PLASTOTYPE Megambonia bellistriata Hall. Paleontology of New York. 1859. 3:467, pl. 109, fig. 4.
Oriskanian Schoharie N. Y.

Megambonia cardiiformis Hall

- 2716 $\frac{9452}{1}$ HYPOTYPE Pterinea cardiiformis Hall. Geology of New York; report on the 4th district. 1843. p. 172.
Megambonia subcardiiformis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 52, fig. 7, 8.
Megambonia cardiiformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 52, fig. 7, 8.
Onondaga limestone Clarence, Erie co. N. Y.

Megambonia crenistriata Clarke

- 2717 $\frac{9453}{1}$ TYPE Megambonia crenistriata Clarke. New York state museum memoir 3. 1900. p. 35, pl. 4, fig. 15.
Oriskanian Becraft mountain, Hudson N. Y.

- 2718 $\frac{9453}{2}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 4, fig. 16.

Oriskanian Becraft mountain, Hudson N. Y.

- 2719 $\frac{9453}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum
memoir 3. 1900. pl. 4, fig. 17.

Oriskanian Becraft mountain, Hudson N. Y.

Megambonia (?) lamellosa Hall

- 2720 $\frac{9454}{1}$ TYPE *Megambonia lamellosa* Hall. Paleontol-
ogy of New York. 1859. 3:467, pl. 109, fig. 6.

Oriskanian Schoharie county, N. Y.

Megambonia (?) obscura Hall

- 2721 $\frac{9455}{1}$ TYPE *Megambonia obscura* Hall. Paleontology
of New York. 1859. 3:277, pl. 49A, fig. 7.

New Scotland beds Schoharie county, N. Y.

J. Gebhard purchase

Megambonia subcardiiformis *see* *Megam-
bonia cardiiformis*

Megambonia (?) suborbicularis Hall

- 2722 $\frac{9456}{1}$ TYPE *Megambonia suborbicularis* Hall. Pale-
ontology of New York. 1859. 3:273, pl. 49A, fig. 5.

New Scotland beds Carlisle, Schoharie co. N. Y.

J. Gebhard purchase

MICRODON Conrad

Microdon bellistriata *see* *Microdon* (*Cypricar-
della*) *bellistriatus*

Microdon (Cypricardella) bellistriatus Conrad

- 2723 $\frac{9470}{1}$ HYPOTYPE *Microdon bellistriata* Conrad. Jour-
nal of the Academy of natural sciences of Philadelphia.
1842. 8:247.

Microdon (*Cypricardella*) *bellistriatus*
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 42, fig. 8b.

Hamilton beds Ludlowville, Cayuga co. N. Y.

G. B. Simpson, coll. 1872

On slab with type of *Goniophora rugosa*, Pal. N. Y.
v. 5, pt 1, pl. 42, fig. 8a.

- 2724 $\frac{9470}{2}$ HYPOTYPE Hall. Paleontology of New York. 1885.
v. 5, pt 1, pl. 42, fig. 18.

Hamilton beds Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2725 $\frac{9470}{3}$ HYPOTYPE Hall. Paleontology of New York. 1885.
v. 5, pt 1, pl. 42, fig. 19.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871
- 2726 $\frac{9470}{4}$ HYPOTYPE Microdon (Microdonella) (Eodon)
bellistriatus Hall. Paleontology of New York.
1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 73, fig. 7.
Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863
- 2727 $\frac{9470}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 73, fig. 8.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 73, fig. 8.
Hamilton beds Skaneateles lake, N. Y.
W. M. Gabb, coll. 1857
- 2728 $\frac{9470}{6}$ HYPOTYPE:HYOPLASTOTYPE Hall. Paleontology of New
York. 1883. v. 5, pt 1, plates and explanations, pl. 73,
fig. 10; pl. 74, fig. 9.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 73, fig. 10; pl. 74, fig. 9.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863
- 2729 $\frac{9470}{7}$ HYPOTYPE:HYOPLASTOTYPE Hall. Paleontology of New
York. 1883. v. 5, pt 1, plates and explanations, pl. 73,
fig. 12, 15; pl. 74, fig. 10.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 73, fig. 12, 15; pl. 74, fig. 10.
Hamilton beds Aurora, Cayuga co. N. Y.
- 2730 $\frac{9470}{8}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 73, fig. 14, 18.
Hall. Paleontology of New York. 1885. pl. 73,
fig. 14, 18.
Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863
- 2731 $\frac{9470}{9}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 73, fig. 16.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 73, fig. 16.
Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 2732 $\frac{9470}{10}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 73, fig. 17.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 73, fig. 17.
Ithaca beds Ithaca N. Y.
J. W. Hall, coll. 1866
- 2733 $\frac{9470}{11}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 74, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 74, fig. 5.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870
- 2734 $\frac{9470}{12}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 74, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 74, fig. 6.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870
- 2735 $\frac{9470}{13}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 74, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 74, fig. 7.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- 2736 $\frac{9470}{14}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 74, fig. 8.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 74, fig. 8.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- Microdon (Microdonella) (Eodon) bellis-
tratus *see* Microdon (Cypricardella) bellistriatus
Microdon ? complanatus *see* Microdon (Cypricardella) complanatus
- Microdon (Cypricardella) complanatus** Hall
- 2737 $\frac{9471}{1}$ **TYPE** Microdon ? complanatus Hall. Prelimi-
nary notice of lamellibranchiate shells, pt 2. 1870. p. 33.
Microdon (Cypricardella) complanatus
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 42, fig. 22.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

- 2738 $\frac{9471}{2}$ TYPE *Microdon* (*Microdonella*) (*Eodon*) *complanatus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 15.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 15.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
Microdon (*Microdonella*) (*Eodon*) *complanatus* see *Microdon cypricardella complanatus*
Microdon gregaria see *Microdon* (*Cypricardella*) *gregarius*
- Microdon* (*Cypricardella*) *gregarius* Hall**
- 2739 $\frac{9472}{1}$ TYPE *Microdon gregaria* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 32.
Microdon (*Microdonella*) (*Eodon*) *gregarius* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 2.
Microdon (*Cypricardella*) *gregarius* Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 2.
Ithaca beds Jefferson, Schoharie co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1869
- 2740 $\frac{9472}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 3.
Ithaca beds Jefferson N. Y.
- 2741 $\frac{9472}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 5.
Ithaca beds Jefferson N. Y.
J. W. Hall and G. B. Simpson, coll. 1869
Microdon (*Microdonella*) (*Eodon*) *gregarius* see *Microdon* (*Cypricardella*) *gregarius*
Microdon tenuistriata see *Microdon* (*Cypricardella*) *tenuistriatus*

Microdon (Cypricardella) tenuistriatus Hall

- 2742 $\frac{9473}{1}$ TYPE *Microdon tenuistriata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 32.

Microdon (Microdonella) (Eodon) tenuistriatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 27.

Microdon (Cypricardella) tenuistriata Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 27.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2743 $\frac{9473}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 28.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Microdon (Microdonella) (Eodon) tenuistriatus *see* *Microdon (Cypricardella) tenuistriatus*

MODIELLA Hall**Modiella pygmaea** Conrad (sp.)

- 2744 $\frac{9480}{1}$ HYPOTYPE *Pterinea pygmaea* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 251.

Modiella pygmaea Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 9.

Hamilton beds

Moravia, Cayuga co. N. Y.

G. B. Simpson, coll. 1863

- 2745 $\frac{9480}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 10.

Hamilton beds

Cayuga lake, N. Y.

J. W. Hall, coll. 1866

- 2746 $\frac{9480}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 12.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

2747 $\frac{9480}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 76, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 13.

Hamilton beds Otisco lake, N. Y.
G. B. Simpson, coll. 1863

2748 $\frac{9480}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 76, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 14.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2749 $\frac{9480}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 76, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 16.

Hamilton beds Otisco lake, N. Y.
G. B. Simpson, coll. 1863

2750 $\frac{9480}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 76, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 17

Hamilton beds Moravia N. Y.
G. B. Simpson, coll. 1863

2751 $\frac{9480}{8}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 76, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 18.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2752 $\frac{9480}{9}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 76, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 19.

Hamilton beds Moravia N. Y.
G. B. Simpson, coll. 1863

MODIOLA Lamarck*Modiola metella* *see* *Modiola* (Mytilops) *metella**Modiola* ? *obtusa* *see* *Modiolopsis obtusa**Modiola praecedens* *see* *Modiola* (Mytilops) *praecedens****Modiola* (Mytilops) *metella* Hall**

2753 $\frac{9490}{1}$ TYPE *Modiola metella* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 1.

Mytilops (*Modiola*) *metella* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 23.

Modiola (Mytilops) *metella* Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 23.

Chemung (?) beds Panama, Chautauqua co. N. Y.

2754 $\frac{9490}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 24.

Hall. Paleontology of New York. 1884. v. 5, pt 1 pl. 33, fig. 24.

Chemung (?) beds Along road from Ellington to Cherry Creek, Chautauqua co. N. Y.
C. Van Deloo, coll. 1863

***Modiola* (Mytilops) *praecedens* Hall**

2755 $\frac{9491}{1}$ TYPE *Modiola praecedens* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 1.

Mytilops (*Modiola*) *praecedens* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 12.

Modiola (Mytilops) *praecedens* Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 12.

Chemung (?) beds Portville, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1864

2756 $\frac{9491}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 15.

Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870

MODIOLOPSIS Hall

Modiolopsis anodontoides *see* *Modiolopsis sinuata*

Modiolopsis (?) lata Hall

- 2757 $\frac{95.00}{1}$ TYPE *Modiolopsis latus* Hall. Paleontology of New York. 1847. 1:160, pl. 35, fig. 10b.
Trenton limestone Watertown, Jefferson co. N. Y.

Modiolopsis modiolaris Conrad (sp.)

- 2758 $\frac{95.01}{1}$ HYPOTYPE *Pterinea modiolaris* Conrad. Annual report of the New York state geological survey. 1838. p. 118.

Modiolopsis modiolaris Hall. Paleontology of New York. 1847. v. 1, pl. 81, fig. 1a.

- Lorraine beds Rome, Oneida co. N. Y.
2759 $\frac{95.01}{2}$ HYPOTYPE Hall. Paleontology of New York. 1847. v. 1, pl. 81, fig. 1b.

Lorraine beds

Rome N. Y.

Modiolopsis nasutus *see* *Orthodesma nasutum*

Modiolopsis obtusa Hall

- 2760 $\frac{95.02}{1}$ TYPE *Modiola? obtusa* Hall. Paleontology of New York. 1847. 1:40, pl. 10, fig. 1.
Lowville limestone Watertown, Jefferson co. N. Y.

Modiolopsis ovata Hall

- 2761 $\frac{95.03}{1}$ TYPE *Modiolopsis ovatus* Hall. Paleontology of New York. 1852. 2:101, pl. 30, fig. 2a.

Clinton beds

Mohawk, Herkimer co. N. Y.

- 2762 $\frac{95.03}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 30, fig. 2b.

Clinton beds

Mohawk N. Y.

Modiolopsis sinuata Emmons (sp.)

- 2763 $\frac{95.04}{1}$ HYPOTYPE *Cypriocardites sinuata* Emmons. Geology of New York; report on the 2d district. 1842. p. 399.

Modiolopsis anodontoides Hall. Paleontology of New York. 1847. v. 1, pl. 82, fig. 3a.

Lorraine beds

Lorraine, Jefferson co. N. Y.

MODIOMORPHA Hall

Modiomorpha alta (Conrad) Hall

- 2764 $\frac{95.20}{1}$ TYPE *Cypriocardites alta* Conrad. Annual report of the New York state geological survey. 1841. p. 52.

Modiomorpha alta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 37, fig. 1.

Marcellus shale

Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

2765 $\frac{2520}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 37, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 37, fig. 2.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2766 $\frac{2520}{3}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 37, fig. 4.

? Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 37, fig. 4.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

2767 $\frac{2520}{4}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 37, fig. 5.

? Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 37, fig. 5.

Hamilton beds

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

2768 $\frac{2520}{5}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 37, fig. 6.

? Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 37, fig. 6.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

2769 $\frac{2520}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 37, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 37, fig. 7.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

2770 $\frac{2520}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 37, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 37, fig. 8.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

- 2771 $\frac{9520}{8}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 12.
 ? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 12.
 Hamilton beds Pratt's falls, N. Y.
 G. B. Simpson, coll. 1863
- 2772 $\frac{9520}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 16.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 16.
 Hamilton beds Delphi, Onondaga co. N. Y.
 G. B. Simpson, coll. 1863
 Modiomorpha? amygdalina see Glossites depressus
- Modiomorpha arcuata Hall**
- 2773 $\frac{9521}{1}$ TYPE Modiomorpha arcuata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 21.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 21.
 Hamilton beds Summit Corners, Schoharie co. N. Y.
 C. Van Deloo, coll. 1862
 Modiomorpha complanata see Modiomorpha mytiloides
 Modiomorpha? hyalea see Elymella nuculoides
- Modiomorpha concentrica (Conrad) Hall**
- 2774 $\frac{9522}{1}$ TYPE Pterinea concentrica Conrad. Annual report of the New York state geological survey. 1838. p. 116.
 Modiomorpha concentrica Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 1.
 Hamilton beds Delphi, Onondaga co. N. Y.
 C. Van Deloo and H. H. Smith, coll. 1873
- 2775 $\frac{9522}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 2.
 Hamilton beds Cayuga lake, N. Y.
 H. H. Smith, coll. 1871
- 2776 $\frac{9522}{3}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 3.
 Hamilton beds Schoharie N. Y.

- 2777 $\frac{9522}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5,
pt 1, pl. 35, fig. 4.
Hamilton beds Cayuga lake, N. Y.
H. H. Smith, coll. 1871
- 2778 $\frac{9522}{5}$ TYPE Hall. Paleontology of New York. 1885. v. 5,
pt 1, pl. 35, fig. 5.
Hamilton beds Delphi N. Y.
C. Van Deloo and H. H. Smith, coll. 1873
- 2779 $\frac{9522}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 36, fig. 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 36, fig. 2.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2780 $\frac{9522}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 36, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 36, fig. 3.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2781 $\frac{9522}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 36, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 36, fig. 6.
Hamilton beds Owasco lake, N. Y.
G. B. Simpson, coll. 1863
- 2782 $\frac{9522}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 36, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 36, fig. 7.
Hamilton beds Darien, Genesee co. N. Y.
C. A. White, coll. 1860
- 2783 $\frac{9522}{10}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 36, fig. 9.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 36, fig. 9.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

- 2784 $\frac{9522}{11}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 12, 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 12, 13.

Hamilton beds

Western New York

- 2785 $\frac{9522}{12}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 17, 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 17, 18.

Hamilton beds

Blenheim, Schoharie co. N. Y.

J. W. Hall and G. B. Simpson, coll. 1869

Modiomorpha macilenta Hall

- 2786 $\frac{9523}{1}$ TYPE *Modiomorpha macilenta* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 76.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 18.

Hamilton beds

York N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2787 $\frac{9523}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 20.

Hamilton beds

Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Modiomorpha mytiloides (Conrad) Hall

- 2788 $\frac{9524}{1}$ TYPE *Cypricardites mytiloides* Conrad. Annual report of the New York state geological survey. 1841. p. 52.

Modiomorpha mytiloides Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 3.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

- 2789 $\frac{9524}{2}$ TYPE *Modiomorpha complanata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 2.

Modiomorpha mytiloides Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 2.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2790 $\frac{9524}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 4.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 2791 $\frac{9524}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 5.
Hamilton beds Western New York
- 2792 $\frac{9524}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 6.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 2793 $\frac{9524}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 9.
Hall. Paleontology of New York. 1885. v. 5, pt 2, pl. 38, fig. 9.
Hamilton beds Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862
- 2794 $\frac{9524}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 10.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 10.
Hamilton beds Apulia, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863
- 2795 $\frac{9524}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 11.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 11.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 2796 $\frac{9524}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 12.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 12.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

- 2797 $\frac{9524}{10}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 14.

Hamilton beds Lebanon, Madison co. N. Y.

Modiomorpha quadrula Hall

- 2798 $\frac{9525}{1}$ TYPE *Modiomorpha quadrula* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 77.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 41, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 18.

Chemung (?) beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

- 2799 $\frac{9525}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 41, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 19.

Chemung (?) beds Cold Spring, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 2800 $\frac{9525}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 41, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 26.

Chemung (?) beds Rockville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Modiomorpha regularis Hall

- 2801 $\frac{9526}{1}$ TYPE *Modiomorpha regularis* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 270, pl. 35, fig. 12.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

Modiomorpha rigida Hall

- 2802 $\frac{9527}{1}$ TYPE *Modiomorpha rigida* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 41, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 14.

Chemung beds Angelica, Allegany co. N. Y.

R. P. Whitfield, coll. 1869

2803 $\frac{9521}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 41, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 15.

Chemung (?) beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

2804 $\frac{9521}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 41, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 16.

Chemung (?) beds Rockville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Modiomorpha schoharie Hall

2805 $\frac{9528}{1}$ TYPE *Modiomorpha schoharie* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 14.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Modiomorpha subalata (Conrad) Hall

2806 $\frac{9529}{1}$ TYPE *Cypricardites subalata* Conrad. Annual report of the New York state geological survey. 1841. p. 83.

Modiomorpha subalata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 2.

Hamilton beds

Cardiff, Onondaga co. N. Y.

G. B. Simpson coll. 1863

2807 $\frac{9529}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 3.

Hamilton beds

Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

2808 $\frac{9529}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 39, fig. 5.

Hamilton beds Cardiff N. Y.

G. B. Simpson, coll. 1863

2809 $\frac{9529}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 39, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 39, fig. 6.

Hamilton beds Cardiff N. Y.

G. B. Simpson, coll. 1863

2810 $\frac{9529}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 39, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 39, fig. 7.

Hamilton beds Hamburg, Erie co. N. Y.

C. Van Deloo, coll. 1864

2811 $\frac{9529}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 39, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 39, fig. 8.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2812 $\frac{9529}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 39, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 39, fig. 10.

Hamilton beds Cayuga lake, N. Y.

J. W. Hall, coll. 1866

2813 $\frac{9529}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 39, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 39, fig. 11.

Hamilton beds

Tinker's falls, Apulia, Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

2814 $\frac{9529}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 39, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 39, fig. 12.

Hamilton beds

Cayuga lake, N. Y.

J. W. Hall, coll. 1866

2815 $\frac{95.29}{10}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 13.

Hamilton beds Tully, Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

2816 $\frac{95.29}{11}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 14.

Hamilton beds Cayuga lake, N. Y.

J. W. Hall, coll. 1866

2817 $\frac{95.29}{12}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 16.

Hamilton beds Cayuga lake, N. Y.

J. W. Hall, coll. 1866

Modiomorpha subalata var. chemungensis Hall

2818 $\frac{95.30}{1}$ TYPE *Modiomorpha subalata* var. *chemungensis* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 284, pl. 39, fig. 15.

Ithaca beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2819 $\frac{95.30}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 7.

Ithaca beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Modiomorpha subangulata Hall

2820 $\frac{95.31}{1}$ TYPE *Modiomorpha subangulata* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 287, pl. 35, fig. 10.

Chemung beds Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

2821 $\frac{95.31}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 11.

Chemung beds Mansfield Pa.

A. Sherwood, coll. 1871

Monotis princeps see *Aviculopecten princeps*

MYTILARCA Hall

Mytilarca acutirostra Hall

- 2822 $\frac{9550}{1}$ HYPOTYPE *Ambonychia acutirostra* Hall.
Geological survey of Wisconsin; report of progress. 1860.
Hall. 11th annual report of the Indiana state geologist.
1882. pl. 27, fig. 28.

Niagaran

Waldron, Shelby co. Ind.

C. D. Walcott, coll. 1878

Mytilarca arenacea see *Mytilarca* (*Plethomytilus*)
arenacea

Mytilarca (*Plethomytilus*) **arenacea** Hall

- 2823 $\frac{9551}{1}$ TYPE *Mytilarca arenacea* Hall. Preliminary
notice of lamellibranchiate shells, pt 2. 1870. p. 20.

Mytilarca (*Plethomytilus*) *arenacea*
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 87, fig. 10.

Schoharie grit

Schoharie N. Y.

C. Van Deloo, coll. 1862

Mytilarca attenuata Hall

- 2824 $\frac{9552}{1}$ TYPE *Mytilarca attenuata* Hall. Preliminary
notice of lamellibranchiate shells, pt 2. 1870. p. 23.

Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 32, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 32, fig. 20.

Chemung beds (drift)

Elmira N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Mytilarca chemungensis Conrad (sp.)

- 2825 $\frac{9553}{1}$ HYPOTYPE *Inoceramus chemungensis* Conrad.
Journal of the Academy of natural sciences of Philadelphia.
1842. 8:246.

Mytilarca chemungensis Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explana-
tions, pl. 32, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 32, fig. 13.

Chemung (?) beds

Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

- 2826 $\frac{9553}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 32, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 32, fig. 14.

Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Mytilarca gibbosa Hall

2827 $\frac{9554}{1}$ TYPE *Mytilarca gibbosa* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 262, pl. 33, fig. 20; pl. 87, fig. 7.

Chemung beds Napoli, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Mytilarca lata Hall

2828 $\frac{9555}{1}$ TYPE *Mytilops (Modiola) lata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 22.

Mytilarca lata Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 22.

Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Mytilarca (Plethomytilus) oviformis Conrad (sp.)

2829 $\frac{9556}{1}$ HYPOTYPE *Inoceramus oviformis* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 246.

Plethomytilus oviformis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 2.

Mytilarca (Plethomytilus) oviformis Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 2.

Hamilton beds Hamilton, Madison co. N. Y.
J. Hall, coll. 1844

2830 $\frac{9558}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 3.

Hamilton beds York Center, Livingston co. N. Y.

2831 $\frac{9559}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 7.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 2832 $\frac{9556}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 8.
Hall. Paleontology of New York. 1883. v. 5, pt 1, pl. 31, fig. 8.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 2833 $\frac{9556}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 87, fig. 8.
Hamilton beds York, Livingston co. N. Y.
C. Van Deloo, coll. 1865

Mytilarca pyramidata Hall

- 2834 $\frac{9557}{1}$ **TYPE** *Mytilarca pyramidata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 1, 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 1, 2.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 2835 $\frac{9557}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 3.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

Mytilarca radiata *see* *Byssopteria radiata*

Mytilarca simplex Hall

- 2836 $\frac{9558}{1}$ **TYPE** *Mytilops* (*Modiola*) *simplex* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 19.
Mytilarca simplex Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 19.
Chemung beds West of Smethport Pa.
C. Van Deloo, coll. 1870
- 2837 $\frac{9558}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 21.
Chemung beds West of Smethport Pa.
C. Van Deloo, coll. 1870
- Mytilops* (*Modiola*) *lata* *see* *Mytilarca lata*
Mytilops (*Modiola*) *metella* *see* *Modiola*
(*Mytilops*) *metella*

Mytilops (*Modiola*) *praecedens* *see* *Modiola*
(*Mytilops*) *praecedens*

Mytilops (*Modiola*) *simplex* *see* *Mytilarca*
simplex

NUCULA Lamarck

Nucula bellistriatus (Conrad) Hall

2838 $\frac{2570}{1}$ TYPE *Nuculites bellistriata* Conrad. Annual
report of the New York state geological survey. 1841.
p. 40.

Nucula bellistriata Hall. Paleontology of New
York. 1883. v. 5, pt 1, plates and explanations, pl. 46,
fig. 1, 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 46, fig. 1, 8.

Hamilton beds

Delphi, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

2839 $\frac{2570}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 46, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 46, fig. 4.

Hamilton beds

Fabius, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

2840 $\frac{2570}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 46, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 46, fig. 6.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2841 $\frac{2570}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 46, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 46, fig. 7.

Hamilton beds

Tinker's falls, Apulia station,

Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

2842 $\frac{2570}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 46, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 46, fig. 9.

Hamilton beds

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Nucula corbuliformis Hall

- 2843 $\frac{9571}{1}$ TYPE? *Nucula corbuliformis* ? Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 2.
 ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 10, 11.
 ? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 10, 11.
 Hamilton beds Canandaigua lake, N. Y.
 R. P. Whitfield and J. W. Hall, coll. 1858
- 2844 $\frac{9571}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 24, 27.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 24, 27.
 Hamilton beds Owasco lake, N. Y.
 G. B. Simpson, coll. 1863
- 2845 $\frac{9571}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 25, 30.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 25, 30.
 Hamilton beds Bellona, Yates co. N. Y.
 J. W. Hall and C. Van Deloo, coll. 1866
- 2846 $\frac{9571}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 26, 34.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 26, 34.
 Hamilton beds Bellona N. Y.
 J. W. Hall and C. Van Deloo, coll. 1866
- 2847 $\frac{9571}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 28.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 28.
 Hamilton beds Skaneateles lake, N. Y.
 G. B. Simpson, coll. 1863
- 2848 $\frac{9571}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 31.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 31.
 Hamilton beds Bellona N. Y.
 J. W. Hall and C. Van Deloo, coll. 1866

- 2849 $\frac{9571}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 33.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 33.
 Hamilton beds Tully, Onondaga co. N. Y.
 R. P. Whitfield and G. B. Simpson, coll. 1863
- 2850 $\frac{9571}{8}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 37.
 ? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 37.
 Ithaca beds Ithaca N. Y.
 J. W. Hall and C. Van Deloo, coll. 1866

***Nucula globularis* Hall**

- 2851 $\frac{9572}{1}$ TYPE *Nucula globularis* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 322, pl. 93, fig. 6.
 Chemung (?) beds Panama, Chautauqua co. N. Y.
 C. Van Deloo, coll. 1870

***Nucula lamellata* Hall**

- 2852 $\frac{9573}{1}$ TYPE *Nucula lamellata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 18.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 18.
 Hamilton beds Norton's landing, Cayuga lake, N. Y.
 H. H. Smith, coll. 1871
- 2853 $\frac{9573}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 19.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 19.
 Hamilton beds Norton's landing, N. Y.
 H. H. Smith, coll. 1871
- 2854 $\frac{9573}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 21.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 21.
 Hamilton beds Norton's landing, N. Y.
 H. H. Smith, coll. 1871
- 2855 $\frac{9573}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 7.
 Ithaca beds Norwich, Chenango co. N. Y.
 J. W. Hall and G. B. Simpson, coll. 1870
Nucula levata see *Tellinomya* (*Ctenodonta*) *levata*

Nucula lirata Conrad (sp.)

- 2856 $\frac{9574}{1}$ HYPOTYPE *Nuculites lirata* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 250.
Nucula lirata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 45, fig. 17.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 45, fig. 17.
 Hamilton beds Skaneateles lake, N. Y.
 G. B. Simpson, coll. 1863
- 2857 $\frac{9574}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 45, fig. 18.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 45, fig. 18.
 Hamilton beds Skaneateles lake, N. Y.
 G. B. Simpson, coll. 1863
- 2858 $\frac{9574}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 45, fig. 19.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 45, fig. 19.
 Hamilton beds Skaneateles lake, N. Y.
 G. B. Simpson, coll. 1863
- 2859 $\frac{9574}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 45, fig. 20.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 45, fig. 20.
 Hamilton beds Skaneateles lake, N. Y.
 G. B. Simpson, coll. 1863
- 2860 $\frac{9574}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 45, fig. 21, 22.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 45, fig. 21, 22.
 Hamilton beds Owasco lake, N. Y.
 G. B. Simpson, coll. 1863
- 2861 $\frac{9574}{6}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 5.
 Hamilton beds Norton's landing, Cayuga lake, N. Y.
 H. H. Smith, coll. 1871

Nucula opima Hall

- 2862 $\frac{2573}{1}$ HYPOTYPE *Cucullea opima* Hall. Geology of New York; report on the 4th district. 1843. p. 197.
Nucula randalli Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 315, pl. 93, fig. 2.
 Hamilton beds Pratt's falls, Onondaga co. N. Y.
 G. B. Simpson, coll. 1873
Nucula randalli see *Nucula opima*

Nucula varicosa Hall

- 2863 $\frac{2572}{1}$ TYPE *Nucula varicosa* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 2.
 Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 12, 13.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 12, 13.
 Hamilton beds Norton's landing, Cayuga lake, N. Y.
 J. W. Hall, coll. 1866
- 2864 $\frac{2579}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 14, 15.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 14, 15.
 Hamilton beds Norton's landing, N. Y.
 J. W. Hall, coll. 1866
- 2865 $\frac{2579}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 16.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 16.
 Hamilton beds Norton's landing, N. Y.
 J. W. Hall, coll. 1866
- 2866 $\frac{2579}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 17.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 17; pl. 93, fig. 4.
 Hamilton beds Norton's landing, N. Y.
 J. W. Hall, coll. 1866
- 2867 $\frac{2579}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 18.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 18.
 Hamilton beds Norton's landing, N. Y.
 J. W. Hall, coll. 1866

- 2868 $\frac{9576}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 19, 23.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 19, 23.
Hamilton beds Norton's landing, N. Y.
J. W. Hall, coll. 1866.
- 2869 $\frac{9576}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 20.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 20.
Hamilton beds Norton's landing, N. Y.
J. W. Hall, coll. 1866.
- 2870 $\frac{9576}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 21.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 21.
Hamilton beds Norton's landing, N. Y.
J. W. Hall, coll. 1866.
- 2871 $\frac{9576}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 22.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 22.
Hamilton beds Bellona N. Y.
C. A. White and C. Van Deloo, coll. 1860.

NUCULITES Conrad

Nuculites bellistriata *see* *Nucula bellistriata*

Nuculites cuneiformis Conrad

- 2872 $\frac{9580}{1}$ HYPOTYPE *Nuculites cuneiformis* Conrad. Annual report of the New York state geological survey. 1841. p. 50.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 13.
Hamilton beds Madison county, N. Y.
J. Hall, coll. 1844.
- 2873 $\frac{9580}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 14.

Hamilton beds

Schoharie county, N. Y.

J. Hall, coll. 1844

Nuculites constricta *see* *Palaeoneilo constricta*

Nuculites emarginata *see* *Nucula emarginata*

Nuculites filosa *see* *Palaeoneilo filosa*

Nuculites lirata *see* *Nucula lirata*

***Nuculites oblongatus* Conrad**

2874 $\frac{9581}{1}$ **HYPOTYPE** *Nuculites oblongata* Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Nuculites oblongatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 1.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2875 $\frac{9581}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 3.

Hamilton beds

Summit, Schoharie co. N. Y.

C. Van Deloo, coll. 1862

2876 $\frac{9581}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 4.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2877 $\frac{9581}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 5.

Hamilton beds

Summit, Schoharie co. N. Y.

C. Van Deloo, coll. 1862

2878 $\frac{9581}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 10.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

J. W. Hall, coll. 1866

Nuculites planulata see *Clidophorus planulatus*

Nuculites radiata see *Pholadella radiata*

Nuculites rostellata see *Leda rostellata*

***Nuculites subcuneatus* Clarke**

- 2879 $\frac{9582}{1}$ TYPE *Nuculites subcuneatus* Clarke. 13th annual report of the New York state geologist. 1894. 1: 173, pl. 4, fig. 9.

Hamilton shales

Livonia salt shaft, Livonia,

Livingston co. N. Y.

D. D. Luther, coll. 1891

- 2880 $\frac{9582}{2}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 10.

Hamilton shales

Livonia salt shaft, Livonia N. Y.

D. D. Luther, coll. 1891

Nuculites submarginata see *Tellinopsis submarginata*

***Nuculites triqueter* Conrad**

- 2881 $\frac{9583}{1}$ TYPE *Nuculites triqueter* Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 20.

Hamilton beds

Fabius, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 2882 $\frac{9583}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 22.

Hamilton beds

Moravia, Cayuga co. N. Y.

G. B. Simpson, coll. 1863

- 2883 $\frac{9583}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 26.

Marcellus shale

Alden, Erie co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 2884 $\frac{9583}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 8.

Hamilton beds Delphi, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1873

- 2885 $\frac{9583}{5}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 9.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

NYASSA Hall

Nyassa arguta Hall

- 2886 $\frac{9590}{1}$ TYPE *Nyassa arguta* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 28.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 9.

Hamilton beds South of Cardiff, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 2887 $\frac{9590}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 10.

Hamilton beds Hamilton, Madison co. N. Y.

J. Hall, coll. 1844

Nyassa recta Hall

- 2888 $\frac{9591}{1}$ TYPE *Nyassa recta* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 29.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 1.

Hamilton or Ithaca beds Fultonham,
Schoharie co. N. Y.

J. Hall, coll. 1844

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 53, fig. 3, 4.

- 2889 $\frac{9591}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 3.

Hamilton or Ithaca beds Fultonham N. Y.

J. Hall, coll. 1844

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 53, fig. 1, 4.

- 2890 $\frac{9591}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 4.

Hamilton or Ithaca beds Fultonham N. Y.

J. Hall, coll. 1844

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 53, fig. 1, 3.

Nyassa subalata Hall

- 2891 $\frac{9592}{1}$ TYPE *Nyassa subalata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 29.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 24.

Hamilton or Ithaca beds Summit, Schoharie co. N. Y.

C. Van Deloo, coll. 1862

ORTHODESMA Hall & Whitfield

Orthodesma nasutum (Conrad) Hall

- 2892 $\frac{9600}{1}$ TYPE *Cypriocardites nasuta* Conrad. Annual report of the New York state geological survey. 1841. p. 52.

Modiolopsis nasutus Hall. Paleontology of New York. 1847. v. 1, pl. 81, fig. 2.

Lorraine beds Lorraine, Jefferson co. N. Y.

ORTHONOTA Conrad

Orthonota carinata (Conrad) Hall

- 2893 $\frac{9610}{1}$ TYPE *Orthonota carinata* Conrad. Annual report of the New York state geological survey. 1841. p. 51.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 34.

Hamilton beds Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Orthonota (?) parvula Hall

- 2894 $\frac{9611}{1}$ TYPE *Orthonota parvula* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 88.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 29.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 78, fig. 31.

2895 $\frac{2611}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 30.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

2896 $\frac{2611}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 31.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 31.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 78, fig. 29.

Orthonota undulata Conrad

2897 $\frac{2612}{1}$ HYPOTYPE *Orthonota undulata* Conrad. Annual report of the New York state geological survey. 1841. p. 51.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 37.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 37.

Hamilton beds Summit N. Y.

C. Van Deloo, coll. 1862

2898 $\frac{2612}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 38.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 38.

Hamilton beds Bear's gulf, Schoharie co. N. Y.

C. Van Deloo, coll. 1862

2899 $\frac{2612}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 39.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 39.

Hamilton beds Schoharie county, N. Y.

- 2900 $\frac{9612}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 40.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 40.
Hamilton beds Summit N. Y.

C. Van Deloo, coll. 1862

- 2901 $\frac{9612}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 41.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 41.
Hamilton beds Summit N. Y.

C. Van Deloo, coll. 1862

PALAEANATINA Hall

Palaeanatina angusta Hall

- 2902 $\frac{9620}{1}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 29.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 490, pl. 79, fig. 29.

Chemung (?) beds Portville, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1864

- 2903 $\frac{9620}{2}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 30.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 30.

Chemung (?) beds Portville N. Y.

C. Van Deloo, coll. 1864

- 2904 $\frac{9620}{3}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 31.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 31.

Chemung (?) beds Portville N. Y.

C. Van Deloo, coll. 1864

- 2905 $\frac{9620}{4}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 32.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 32.

Chemung (?) beds Portville N. Y.

C. Van Deloo, coll. 1864

- 2906 $\frac{9620}{5}$ TYPE *Palaeaanatina typa* Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 33.
Palaeaanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 33.
 Chemung (?) beds Portville N. Y.
 C. Van Deloo, coll. 1864
- 2907 $\frac{9620}{6}$ TYPE *Palaeaanatina typa* (Hall in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 34.
Palaeaanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 34.
 Chemung (?) beds Portville N. Y.
 C. Van Deloo, coll. 1864
Palaeaanatina quadrata *see* *Prorhynchus quadratum*
- Palaeaanatina solenoides* Hall**
- 2908 $\frac{9621}{1}$ TYPE *Palaeaanatina typa* Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 38, 39.
Palaeaanatina solenoides Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 489, pl. 79, fig. 38, 39.
 Chemung (?) beds Portville N. Y.
 C. Van Deloo, coll. 1864
Palaeaanatina typa *see* *Palaeaanatina angusta*
Palaeaanatina typa *see* *Palaeaanatina solenoides*
- Palaeaanatina typus* Hall**
- 2909 $\frac{9622}{1}$ TYPE *Palaeaanatina typa* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 85.
 Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 26.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 26.
 Chemung (?) beds Portville, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1864
- 2910 $\frac{9622}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 27.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 27.
 Chemung (?) beds Portville N. Y.
 C. Van Deloo, coll. 1864

- 2911 $\frac{9622}{3}$ TYPE Hall. Paleontology of New York. 1883 v. 5, pt 1,
plates and explanations, pl. 79, fig. 28.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 79, fig. 28.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864
- 2912 $\frac{9622}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 79, fig. 35.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 79, fig. 35.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864
- 2913 $\frac{9622}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 79, fig. 36.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 79, fig. 36.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864
- 2914 $\frac{9622}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 79, fig. 37.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 79, fig. 37.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

PALAEONEILO Hall

Palaeoneilo angusta Hall

- 2915 $\frac{9630}{1}$ TYPE Palaeoneilo angusta Hall. Paleontology
of New York. 1885. v. 5, pt 1, p. 344, pl. 93, fig. 11.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

Palaeoneilo arata Hall

- 2916 $\frac{9631}{1}$ TYPE Palaeoneilo arata Hall. Paleontology of
New York. 1883. v. 5, pl. 1, plates and explanations,
pl. 50, fig. 23.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 23.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Palaeoneilo bisulcata Hall

- 2917 $\frac{9632}{1}$ TYPE *Palaeoneilo bisulcata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 10.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 13.

Chemung beds

Elmira N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 2918 $\frac{9632}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 14.

Chemung beds

Elmira N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo brevis Hall

- 2919 $\frac{9633}{1}$ TYPE *Palaeoneilo brevis* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 10.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 24.

Ithaca beds

Franklin, Delaware co. N. Y.

J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 50, fig. 33.

- 2920 $\frac{9633}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 25.

Ithaca beds

Franklin N. Y.

J. Hall, coll. 1862

- 2921 $\frac{9633}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 26.

Ithaca beds

Franklin N. Y.

J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 50, fig. 27.

- 2922 $\frac{9633}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 27.

Ithaca beds Franklin N. Y.
J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 50, fig. 26.

2923 $\frac{9633}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 28.

Ithaca beds Franklin N. Y.
J. Hall, coll. 1862

2924 $\frac{9633}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 29.

Ithaca beds Franklin N. Y.
J. Hall, coll. 1862

2925 $\frac{9633}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 30.

Chemung beds Belmont, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

2926 $\frac{9633}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 33.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 33.

Ithaca beds Franklin N. Y.
J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 50, fig. 24.

Palaeoneilo constricta Conrad (sp)

2927 $\frac{9634}{1}$ HYPOTYPE Nuculites constricta Conrad. Journal
of the Academy of natural sciences of Philadelphia. 1842
8: 249.

Palaeoneilo constricta Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations
pl. 48, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 3.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1860

- 2928 $\frac{2634}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 48, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 4.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863
- 2929 $\frac{2634}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 48, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 7.
Hamilton beds Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- 2930 $\frac{2634}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 48, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 13.
Hamilton beds Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862
- 2931 $\frac{2634}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 48, fig. 16.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 16.
Ithaca beds Dryden, Tompkins co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- Palaeoneilo constricta** *var. flexuosa* Hall
- 2932 $\frac{2635}{1}$ **TYPE** *Palaeoneilo constricta* *var. flexuosa*
Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 48, fig. 18.
Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 18.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
- Palaeoneilo emarginata** (Conrad) Hall
- 2933 $\frac{2636}{1}$ **TYPE** *Nuculites emarginata* Conrad. Annual re-
port of the New York state geological survey. 1841.
p. 50.
Palaeoneilo emarginata Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 50, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 1.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2934 $\frac{9636}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 2.

Hamilton beds

Aurora, Cayuga co. N. Y.

G. B. Simpson, coll. 1863

2935 $\frac{9636}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 3.

Hamilton beds

Tully, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

2936 $\frac{9636}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 6.

Hamilton beds

Cumberland Md.

R. P. Whitfield and C. Van Deloo, coll. 1858

2937 $\frac{9636}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 50, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 9.

Hamilton beds

Cumberland Md.

R. P. Whitfield and C. Van Deloo, coll. 1858

Palaeoneilo fecunda Hall

2938 $\frac{9637}{1}$ TYPE *Palaeoneilo fecunda* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 8.

Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 13.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2939 $\frac{9637}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 49, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 15.

Hamilton beds

Cumberland Md.

R. P. Whitfield and C. Van Deloo, coll. 1858

2940 $\frac{9637}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 16.

Hamilton beds

Cumberland Md.

R. P. Whitfield and C. Van Deloo, coll. 1858

2941 $\frac{9637}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 17.

Hamilton beds

Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

2942 $\frac{9637}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 18, 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 18, 23.

Hamilton beds

Cumberland Md.

R. P. Whitfield and C. Van Deloo, coll. 1858

Palaeoneilo filosa Conrad (sp.)

2943 $\frac{9638}{1}$ HYPOTYPE *Nuculites filosa* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:250.

Palaeoneilo filosa Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 38.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 38.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo muta Hall

2944 $\frac{9639}{1}$ TYPE *Palaeoneilo muta* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 8.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 25.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2945 $\frac{9639}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 26.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

2946 $\frac{9639}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 28.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

2947 $\frac{9639}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 29.

Hamilton beds

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

2948 $\frac{9639}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 31, 32.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 31, 32.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

Palaeoneilo perplana Hall

2949 $\frac{9640}{1}$ TYPE *Palaeoneilo ? perplana* Hall. Prelimi-
nary notice of lamellibranchiate shells, pt 2. 1870. p. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 93, fig. 12.

Hamilton beds

Reidsville, Albany co. N. Y.

J. W. Hall, coll. 1878

Palaeoneilo plana Hall

2950 $\frac{9641}{1}$ TYPE *Palaeoneilo plana* Hall. Preliminary notice
of lamellibranchiate shells, pt 2. 1870. p. 7.

Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 48, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 21.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1866

2951 $\frac{9641}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 48, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 24.

Hamilton beds Tinker's falls, near Apulia N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

2952 $\frac{9641}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 48, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 27.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

2953 $\frac{9641}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 48, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 48, fig. 28.

Ithaca beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo tenuistriata Hall

2954 $\frac{9642}{1}$ TYPE Palaeoneilo tenuistriata Hall. Prelim-
inary notice of lamellibranchiate shells, pt 2. 1870. p. 9.

Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 4.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2955 $\frac{9642}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 49, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 5.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2956 $\frac{9642}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 6.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

2957 $\frac{9642}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 49, fig. 7.

Hamilton beds Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

2958 $\frac{9642}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1,
plates and explanations, pl. 49, fig. 8.

Hall. Paleontology of New York. 1883. v. 5, pt 1,
pl. 49, fig. 8.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

Palaeoneilo truncata Hall

2959 $\frac{9642}{1}$ TYPE Palaeoneilo truncata Hall. Paleontology of
New York. 1883. v. 5, pt 1, plates and explanations,
pl. 50, fig. 40.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 50, fig. 40.

Waverly group Weymouth, Medina co. O.

C. A. White, coll. 1861

Palaeoneilo virginica Hall

2960 $\frac{9644}{1}$ TYPE Palaeoneilo virginica Hall. Paleontology
of New York. 1885. v. 5, pt 1, p. 341, pl. 93, fig. 14.

Hamilton beds Patterson's creek, Va.

R. P. Whitfield and C. Van Deloo, coll. 1858

PALAEOPINNA Hall

Palaeopinna flabellum Hall

2961 $\frac{9650}{1}$ TYPE Paleopinna flabella Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 25, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 25, fig. 18; pl. 87, fig. 4.

Oriskany sandstone Schoharie N. Y.

PANENKA Barrande

Panenka degener Hall

- 2962 $\frac{9660}{1}$ TYPE *Panenka degener* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 424, pl. 94, fig. 14.
Hamilton beds Pratt's falls, N. Y.
C Van Deloo and H. H. Smith, coll. 1874

Panenka dichotoma Hall

- 2963 $\frac{9661}{1}$ TYPE *Cardiola ? dichotoma* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 21.

Panenka dichotoma Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 21.

Schoharie grit Schoharie N. Y.

- 2964 $\frac{9661}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 94, fig. 13.

Schoharie grit Schoharie N. Y.

Panenka equilatera Hall

- 2965 $\frac{9662}{1}$ TYPE *Cardiola ? equilatera* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 4.

Panenka equilatera Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 4.

Marcellus shale Avon, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Panenka lincklaeni Hall

- 2966 $\frac{9663}{1}$ TYPE *Cardiola lincklaeni* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 186.

Cardiola ? lincklaeni Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 12.

Panenka lincklaeni Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 12.

Marcellus shale Flint creek near Phelps,
Ontario co. N. Y.

L. Lincklaen, coll. 1859

- 2967 $\frac{9663}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 13.

Marcellus shale Indian reservation near Buffalo N. Y.

- 2968 $\frac{9663}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 14.

Marcellus shale Indian reservation near Buffalo N. Y.

Panenka mollis? Hall

- 2969 $\frac{9664}{1}$ TYPE? Panenka mollis? Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 420, pl. 80, fig. 9.

Marcellus shale

Western New York

Pickett collection

Panenka radians Conrad (sp.)

- 2970 $\frac{9665}{1}$ HYPOTYPE Pterinea radians Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. p. 252.

Cardiola? radians Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 9.

Panenka radians Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 9.

Hamilton beds

Cazenovia, Madison co. N. Y.

Panenka retusa Hall

- 2971 $\frac{9666}{1}$ TYPE Cardiola? radians (Conrad) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 6.

Panenka retusa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 421, pl. 69, fig. 6.

Hamilton beds

Cayuga lake, N. Y.

Panenka ventricosa Hall

- 2972 $\frac{9667}{1}$ TYPE Cardiola? elevata (Conrad) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 1, 2.

Panenka ventricosa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 417, pl. 69, fig. 1, 2.

Marcellus shale (Agoniatite limestone)

Schoharie county, N. Y.

PARACYCLAS Hall

Paracyclas elliptica Hall

- 2973 $\frac{9670}{1}$ HYPOTYPE Paracyclas elliptica Hall. Geology of New York; report on the 4th district. 1843. p. 171.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 24.

Onondaga limestone

Columbus O.

R. P. Whitfield, coll. 1865

2974 $\frac{9670}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 27, 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 27, 28.

Onondaga limestone

Ontario Can.

J. De Cew, coll. 1866

Paracyclas ? elevata see *Schizodus ? fissus*

Paracyclas ignota Hall

2975 $\frac{9671}{1}$ **TYPE** *Paracyclas ignota* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 34.

Chemung beds

Meadville, Crawford co. Pa.

C. Van Deloo, coll. 1863

Paracyclas lirata Conrad (sp.)

2976 $\frac{9672}{1}$ **HYPOTYPE** *Posidonia lirata* Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Paracyclas lirata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 11.

Hamilton beds

Fultonham, Schoharie co. N. Y.

W. M. Gabb, coll. 1857

2977 $\frac{9672}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 12.

Hamilton beds

Fultonham N. Y.

W. M. Gabb, coll. 1857

- 2978 $\frac{9672}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 13.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857
- 2979 $\frac{9672}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 14.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857
- 2980 $\frac{9672}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 17.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 17.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857
- 2981 $\frac{9672}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 18.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 18.
Hamilton beds Fultonham N. Y.
J. Hall, coll. 1844
- 2982 $\frac{9672}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 19.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 19.
Hamilton beds Fultonham N. Y.
- Paracyclas ? paupera** Hall
- 2983 $\frac{2673}{1}$ **TYPE** Cytherodon (Schizodus) pauper Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 24.
Paracyclas ? pauper Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 24.
Chemung (?) beds Portville, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1864
- 2984 $\frac{9673}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 26.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 26.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

Paracyclas rotunda Hall

- 2985 $\frac{9674}{1}$ TYPE *Cardiomorpha rotunda* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 18.

Paracyclas rotunda Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 18; pl. 95, fig. 21.

Chemung beds Kirkwood, Broome co. N. Y.

A. Sherwood, coll. 1871

- 2986 $\frac{9674}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 19.

Chemung beds Kirkwood N. Y.

A. Sherwood coll. 1871

Paracyclas tenuis Hall

- 2987 $\frac{9675}{1}$ TYPE *Paracyclas tenuis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 20.

Hamilton beds Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 2988 $\frac{9675}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 21.

Hamilton beds Cayuga lake, N. Y.

J. W. Hall, coll. 1866

- 2989 $\frac{9675}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 22.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

- 2990 $\frac{9675}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 25.

Hamilton beds Skaneateles lake, N. Y.

J. W. Hall and G. B. Simpson, coll. 1872

PARARCA Hall

Pararca erecta Hall

- 2991 $\frac{9680}{1}$ TYPE *Cardiola erecta* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 16.

Pararca erecta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 16.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

Pararca neglecta Hall

- 2992 $\frac{9681}{1}$ TYPE *Cardiola transversa* Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 13.

Pararca neglecta Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 432, pl. 70, fig. 13.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

Pararca precedens Hall

- 2993 $\frac{9682}{1}$ PLASTOTYPE *Pararca precedens* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 429, pl. 94, fig. 19.

Onondaga limestone

Cayuga Ont.

Pararca sao Hall

- 2994 $\frac{9683}{1}$ TYPE *Cardiola sao* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 17.

Pararca sao Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 17.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

Pararca transversa Hall

- 2995 $\frac{9684}{1}$ TYPE *Cardiola transversa* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 12.

Pararca transversa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 12.

Chemung (?) beds Salamanca, Cattaraugus co. N. Y.

R. P. Whitfield, coll. 1869

- 2996 $\frac{2684}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 14.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 14.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869
- 2997 $\frac{2684}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 15.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 15.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869
Pecten cancellatus see *Aviculopecten cancellatus*
Pecten? crenulatus see *Crenipecten crenulatus*
Pecten duplicatus see *Aviculopecten duplicatus*
Pernopecten fasciculatus see *Lyriopecten fasciatus*
- PHOLADELLA Hall
- Pholadella parallela** Hall
- 2998 $\frac{2690}{1}$ TYPE Grammysia parallela Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 59.
Pholadella parallela Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 22.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 22.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863
- 2999 $\frac{2690}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 23.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 23.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863
- 3000 $\frac{2690}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 24.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 24.
Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

Pholadella radiata Conrad (sp.)

- 3001 $\frac{9691}{1}$ **HYPOTYPE** *Nuculites radiata* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:248.

Pholadella radiata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations pl. 78, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 16.

Hamilton beds

Fabius N. Y.

G. B. Simpson, coll. 1863

- 3002 $\frac{9691}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 18.

Hamilton beds

Summit, Schoharie co. N. Y.

J. Hall, coll. 1844

- 3003 $\frac{9691}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 20.

Hamilton beds

Fabius N. Y.

G. B. Simpson, coll. 1863

PHTHONIA Hall**Phthonia cylindrica** Hall

- 3004 $\frac{9700}{1}$ **TYPE** *Phthonia cylindrica* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 1.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

- 3005 $\frac{9700}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 3.

Hamilton beds

Pratt's falls, N. Y.

G. B. Simpson, coll. 1871

- 3006 $\frac{9700}{3}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 4.

Hamilton beds

Delphi, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

Phthonia lirata Hall

3007 $\frac{2701}{1}$ TYPE: PLASTOTYPE *Phthonia lirata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 14.

Hamilton beds

Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Phthonia nodicostata Hall

3008 $\frac{2702}{1}$ TYPE *Phthonia nodicostata* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 71.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 5.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

3009 $\frac{2702}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 7, 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 7, 9.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

3010 $\frac{2702}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 8.

Hamilton beds

Cayuga lake, N. Y.

C. A. White, coll. 1860

Phthonia sectifrons Conrad (sp.)

3011 $\frac{2703}{1}$ HYPOTYPE *Cypricardites sectifrons* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:245.

Phthonia sectifrons Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 12.

Hamilton beds

Cazenovia, Madison co. N. Y.

J. Hall, coll. 1862

3012 $\frac{9703}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 13.

Hamilton beds

West Bloomfield, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Phthonia truncata Hall

3013 $\frac{9704}{1}$ TYPE *Phthonia truncata* Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 476, pl. 94, fig. 4.

Chemung (?) beds. Panama, Chautauqua co. N. Y.

J. Hall, coll. 1870

Pinnopsis ornatus see *Lunulicardium ornatum*

Plethomytilus oviformis see *Mytilarca* (*Plethomytilus*) *oviformis*

Pleurorhynchus attenuatus see *Conocardium cuneus* var. *attenuatum*

Pleurorhynchus cuneus see *Conocardium cuneus*

Pleurorhynchus trigonalis see *Conocardium cuneus* var. *trigonale*

Posidonia alveata see *Grammysia alveata*

Posidonia ? arcuata see *Grammysia arcuata*

Posidonia lirata see *Paracyclas lirata*

PRORHYNCHUS Hall

Prorhynchus quadratum Hall

3014 $\frac{9720}{1}$ TYPE *Palaeonatina quadrata* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 199.

Palaeonatina quadrata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 40.

Prorhynchus quadratum Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 40.

Upper Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

- 3015 $\frac{9720}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 41, 42.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 41, 42.
Upper Chemung beds Smethport Pa.
- 3016 $\frac{9720}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 43.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 43
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870
- 3017 $\frac{9720}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 44.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 44.
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870
- 3018 $\frac{9720}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 45.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 45.
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870
On slab with type of Pal. N. Y. v. 5, pt 1, pl. 79, fig. 44.
- 3019 $\frac{9720}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 46.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 46.
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870
- 3020 $\frac{9720}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 47.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 47; pl. 96, fig. 5.
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870
- 3021 $\frac{9720}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 48.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 48.
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870

- 3022 $\frac{9720}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 49.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 49.
Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1877

PROTHYRIS Meek

Prothyris alata Hall

- 3023 $\frac{9730}{1}$ TYPE Prothyris alata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 461, pl. 94, fig. 7.
Chemung beds Belmont, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

Prothyris lanceolata Hall

- 3024 $\frac{9731}{1}$ TYPE Prothyris lanceolata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 2.
Hamilton beds Cayuga lake, N. Y.

J. W. Hall, coll. 1866

- 3025 $\frac{9731}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 4.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 3026 $\frac{9731}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 5.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

- 3027 $\frac{9731}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 6.
Hamilton beds Bethany, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 3028 $\frac{9731}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 8.

Hamilton beds

Fabius, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

Prothyris planulata Hall

3029 $\frac{9732}{1}$ TYPE *Prothyris planulata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 94, fig. 8.

Ithaca beds

Norwich, Chenango co. N. Y.

G. B. Simpson, coll. 1875

PROTOMYA Hall

Protomya oblonga Hall

3030 $\frac{9740}{1}$ TYPE *Cardiomorpha oblonga* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 21.

Protomya oblonga Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 21.

Hamilton beds

Fultonham N. Y.

On slab with type of *Liopteria bigsbyi*, Pal. N. Y. v. 5, pt 1, pl. 20, fig. 13-15.

PTERINEA Goldfuss

Pterinea bisulcata *see* *Grammysia bisulcata*

Pterinea cardiiformis *see* *Megambonia cardiiformis*

Pterinea chemungensis Conrad (sp.)

3031 $\frac{9750}{1}$ HYPOTYPE *Avicula chemungensis* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:243.

Pterinea chemungensis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 16, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 16, fig. 7.

Chemung beds Chemung narrows, Chemung co. N. Y.

Pterinea concentrica *see* *Modiomorpha concentrica*

Pterinea consimilis Hall

- 3032 $\frac{9751}{1}$ TYPE *Pterinea consimilis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 16, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 16, fig. 1.

Chemung beds

Chemung county, N. Y.

- 3033 $\frac{9751}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 84, fig. 23.

Chemung beds

Near Nichols, Tioga co. N. Y.

A. Sherwood, coll. 1871

Pterinea cuneata see *Sphenotus cuneatus*

Pterinea flabellum Conrad (sp.)

- 3034 $\frac{9752}{1}$ HYPOTYPE *Avicula flabella* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:238.

Pterinea flabella Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 4.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 3035 $\frac{9752}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 5, 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 5, 12.

Hamilton beds

Tully N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

- 3036 $\frac{9752}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 7.

Hamilton beds Spafford corners, Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

- 3037 $\frac{9752}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 8, 11, 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 8, 11, 14.

Hamilton beds

Delphi N. Y.

G. B. Simpson, coll. 1863

- 3038 $\frac{9752}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 9.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 9.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1866
- 3039 $\frac{9752}{6}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 15, fig. 10.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 15, fig. 10.
Hamilton beds Hamburg, Erie co. N. Y.
C. A. White, coll. 1860
- 3040 $\frac{9752}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 11.
Chemung beds Lawrenceville, Tioga co. Pa.
A. Sherwood, coll. 1871
- 3041 $\frac{9752}{8}$ **HYPOTYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 12.
Hamilton beds Schoharie county, N. Y.
J. Gebhard purchase
- Pterinea grandis** Hall
- 3042 $\frac{9753}{1}$ **TYPE** *Pterinea grandis* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 91, pl. 83, fig. 14.
Onondaga limestone Lexington, Scott co. Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- Pterinea halli** nom. nov.
- 3043 $\frac{9754}{1}$ **TYPE** *Avicula securiformis* Hall. Paleontology of New York. 1859. 3:290, pl. 53, fig. 11 (name pre-occupied).
New Scotland beds Schoharie N. Y.
- The species described by Hall in Pal. N. Y. 2:331, as *Avicula securiformis*, from the Coralline limestone, while specifically unlike that from the Helderbergian here referred to, appears to pertain to the same genus, and, with this present evidence, it becomes desirable to distinguish the two by the change of name above suggested.
- Pterinea interstitialis** Hall
- 3044 $\frac{9755}{1}$ **TYPE** *Pterinea interstitialis* Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 84, fig. 22.
Chemung beds Chemung narrows, Chemung co. N. Y.
Pterinea modiolaris see *Modiolopsis modiolaris*

Pterinea naviformis Conrad (sp.)

- 3045 $\frac{9756}{1}$ HYPOTYPE *Avicula naviformis* Conrad. Journal of the Academy of natural sciences. 1842. 8:210.
 ? Hall. Paleontology of New York. 1859. v. 3, pl. 49A, fig. 9a.

Coeymans limestone

Schoharie N. Y.

J. Gebhard purchase

- 3046 $\frac{9756}{2}$ HYPOTYPE ? Hall. Paleontology of New York. 1859. v. 3, pl. 49A, fig. 9b.

Coeymans limestone

Schoharie N. Y.

- 3047 $\frac{9756}{3}$ HYPOTYPE ? Hall. Paleontology of New York. 1859. v. 3, pl. 49A, fig. 9c.

Coeymans limestone

Schoharie N. Y.

Pterinea orbicularis see *Ambonychia orbicularis*

Pterinea pinguis Hall

- 3048 $\frac{9757}{1}$ TYPE *Pterinea pinguis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 15, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 15, fig. 2; pl. 83, fig. 13.

Onondaga limestone

Columbus O.

R. P. Whitfield, coll. 1865

- 3049 $\frac{9757}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 15, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 15, fig. 3.

Onondaga limestone

Columbus O.

R. P. Whitfield, coll. 1865

Pterinea planulata see *Cypricardina planulata*

Pterinea prora Hall

- 3050 $\frac{9758}{1}$ TYPE *Pterinea prora* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 16, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 16, fig. 14.

Chemung beds

Chemung county, N. Y.

Pterinea pygmaea see *Modiella pygmaea*

Pterinea radians see *Panenka radians*

Pterinea securiformis Hall

- 3051 $\frac{9759}{1}$ TYPE *Avicula securiformis* Hall. Paleontology of New York. 1852. 2:331, pl. 75, fig. 4.

Coralline (Cobleskill) limestone Schoharie N. Y.

- 3052 $\frac{9759}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 75, fig. 5b.

Coralline (Cobleskill) limestone Schoharie N. Y.

Pterinea ? suborbicularis *see* *Pterinopecten suborbicularis*

Pterinea triqueter see *Gosselettia triquetra*

Pterinea undata see *Clionychia undata*

PTERINOPECTEN Hall**Pterinopecten conspectus** Hall

- 3053 $\frac{9770}{1}$ TYPE: PLASTOTYPE *Pterinopecten conspectus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 17.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 17.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

- 3054 $\frac{9770}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 18.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

- 3055 $\frac{9770}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 20.

Hamilton beds Darien, Genesee co. N. Y.

C. A. White, coll. 1860

- 3056 $\frac{9770}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 21.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 21.

Hamilton beds Fall brook near Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

Pterinopecten crenicostatus Hall

- 3057 $\frac{9771}{1}$ TYPE *Pterinopecten crenulatus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 3.

Pterinopecten crenicostatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 78, pl. 8, fig. 3.

Chemung beds Conewango, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 3058 $\frac{9771}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 4; pl. 82, fig. 14.

Chemung beds Angelica N. Y.

R. P. Whitfield, coll. 1869

Pterinopecten crenulatus *see* *Pterinopecten crenicostatus*

Pterinopecten dispandus Hall

- 3059 $\frac{9772}{1}$ TYPE *Pterinopecten dispandus* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 76, pl. 82, fig. 11.

Chemung beds Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

- 3060 $\frac{9772}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 12.

Chemung beds Mansfield Pa.

A. Sherwood, coll. 1871

Pterinopecten exfoliatus Hall

- 3061 $\frac{9773}{1}$ TYPE *Pterinopecten exfoliatus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 1, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 16.

Marcellus shale Littleville near West Avon,

Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3062 $\frac{9773}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 7.

Stafford (Marcellus) limestone Genesee county, N. Y.

Pterinopecten filitextus Hall

- 3063 $\frac{9774}{1}$ TYPE *Pterinopecten filitextus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 9.

Hamilton beds

Cardiff, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

Pterinopecten hermes Hall

- 3064 $\frac{9775}{1}$ TYPE *Pterinopecten hermes* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 13.

Hamilton beds

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

- 3065 $\frac{9775}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 14.

Hamilton beds

Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3066 $\frac{9775}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 15.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Pterinopecten intermedius Hall

- 3067 $\frac{9776}{1}$ TYPE *Pterinopecten intermedius* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 68, pl. 83, fig. 4.

Hamilton beds

Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

- 3068 $\frac{9776}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York, 1884. v. 5, pt 1, pl. 83, fig. 5.

Hamilton beds

Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Pterinopecten neptunus Hall

- 3069 $\frac{9777}{1}$ TYPE *Pterinopecten neptunus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 5.

Chemung beds Belmont, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

- 3070 $\frac{9777}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 6.

Chemung beds Belmont N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

On slab with type of *Leptodesma lichas*, Pal. N. Y. v. 5, pt 1, pl. 21, fig. 37.

- 3071 $\frac{9777}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 7.

Chemung beds Angelica N. Y.

R. P. Whitfield, coll. 1869

Pterinopecten ? obscurus Hall (sp.)

- 3072 $\frac{9778}{1}$ TYPE *Avicula obscura* Hall. Paleontology of New York. 1859. 3:280, pl. 49, fig. 6.

Manlius limestone Schoharie N. Y.

Pterinopecten proteus Clarke

- 3073 $\frac{9779}{1}$ TYPE: PLASTOTYPE *Pterinopecten proteus* Clarke. New York state museum memoir 3. 1900. p. 32, pl. 4, fig. 4.

Oriskanian Becraft mountain, near Hudson N. Y.

- 3074 $\frac{9779}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 5.

Oriskanian Becraft mountain, near Hudson N. Y.

- 3075 $\frac{9779}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 6.

Oriskanian Becraft mountain, near Hudson N. Y.

- 3076 $\frac{9779}{4}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 7.

Oriskanian Becraft mountain, near Hudson N. Y.

- 3077 $\frac{9779}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 8.
Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten pumilus Clarke

- 3078 $\frac{9780}{1}$ TYPE: PLASTOTYPE *Pterinopecten pumilus* Clarke. New York state museum memoir 3. 1900. p. 33, pl. 4, fig. 9.
Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten regularis Hall

- 3079 $\frac{9781}{1}$ TYPE *Pterinopecten regularis* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 70, pl. 83, fig. 1.
Hamilton beds Between Geneseo and Avon N. Y.
C. Van Delco, coll. 1865

Pterinopecten signatus Clarke

- 3080 $\frac{9782}{1}$ TYPE: PLASTOTYPE *Pterinopecten signatus* Clarke. New York state museum memoir 3. 1900. p. 33, pl. 4, fig. 3.
Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten spondylus Hall

- 3081 $\frac{9783}{1}$ TYPE *Pterinopecten spondylus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 16.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Pterinopecten strictus Hall

- 3082 $\frac{9784}{1}$ TYPE: PLASTOTYPE *Pterinopecten strictus* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 2; pl. 82, fig. 18.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

Pterinopecten subequilateralis *see* *Pterinopecten subequilaterus*

Pterinopecten subequilateralis Hall (sp.)

- 3083 $\frac{9785}{1}$ TYPE *Avicula subequilatera* Hall. Paleontology of New York. 1859. 3: 281, pl. 49A, fig. 6.
Coeymans limestone Schoharie N. Y.

- 3084 $\frac{9785}{2}$ **HYPOTYPE: HYPOPLASTOTYPE** *Pterinopecten subequilateralis* Clarke. New York state museum memoir 3. 1900. p. 31, pl. 4, fig. 14.
Oriskanian Becraft mountain, near Hudson N. Y.

***Pterinopecten suborbicularis* Hall**

- 3085 $\frac{9786}{1}$ **HYPOTYPE** *Pterinea? suborbicularis* Hall. Geology of New York; report on the 4th district. 1843. p. 264.
Pterinopecten suborbicularis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 1.

Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

- 3086 $\frac{9786}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 10.
Hall. Paleontology of New York. 1884. v. 5 pt 1, pl. 24, fig. 10.

Chemung beds Elm Valley, Allegany co. N. Y.
A. Sherwood, coll. 1871

- 3087 $\frac{9786}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 4.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

***Pterinopecten undosus* Hall**

- 3088 $\frac{9787}{1}$ **TYPE** *Aviculopecten undulatus* Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 185.
Pterinopecten undosus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 10.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 3089 $\frac{9787}{2}$ **TYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 11.

Hamilton beds Bethany, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 3090 $\frac{2787}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 12.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 12.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 3091 $\frac{2787}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 13.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 13.
Onondaga limestone Clarence Hollow N. Y.
C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860
- 3092 $\frac{2787}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 14.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 14.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 3093 $\frac{2787}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 16.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 3094 $\frac{2787}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 17.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 17.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 3095 $\frac{2787}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 18.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 18.
Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 3096 $\frac{2787}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 19.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 19.
Hamilton beds Geneseo N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 3097 $\frac{9787}{10}$ TYPE Hall. Paleontology of New York. 1884. v. 5.
pt 1, pl. 82, fig. 7.
Hamilton beds Bethany N. Y.
C. Van Deloo, coll. 1865

Pterinopecten vertumnus Hall

- 3098 $\frac{9788}{1}$ TYPE Pterinopecten vertumnus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 4.

Hamilton beds Schoharie county, N. Y.

- 3099 $\frac{9788}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 6.

Hamilton beds Tully, Onondaga co. N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

- 3100 $\frac{9788}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 2.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 3101 $\frac{9788}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 3.

Hamilton beds Borodino N. Y.

J. W. Hall and G. B. Simpson, coll. 1872

PTERONITES McCoy

Pteronites inoptatus Hall

- 3102 $\frac{9790}{1}$ TYPE Pteronites inoptatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 239, pl. 87, fig. 5.

Chemung beds Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

Pteronites profundus Hall

- 3103 $\frac{9791}{1}$ TYPE Pteronites profundus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 25.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 25.

Chemung beds East Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 3104 $\frac{2791}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 26.
Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- 3105 $\frac{2791}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 27.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 27.
Upper Chemung (?) beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863
- Pteronites subdecussata* see *Actinopteria subdecussata*

PTYCHOPTERIA Hall

Ptychopteria alata Hall

- 3106 $\frac{2800}{1}$ TYPE? *Ptychopteria alata*? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 21.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 21.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869
- 3107 $\frac{2800}{2}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 22.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 22.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869
- 3108 $\frac{2800}{3}$ TYPE *Ptychopteria alata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 25.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 25.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869
- 3109 $\frac{2800}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 26.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

- 3110 $\frac{9800}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 85, fig. 26.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

Ptychopteria elongata Hall.

- 3111 $\frac{9801}{1}$ TYPE Ptychopteria elongata Hall. Paleontology
of New York. 1884. v. 5, pt 1, p. 141, pl. 85, fig. 10, 13.
Chemung (?) beds Panama, Chautauqua co. N. Y.
J. Hall, coll. 1871
- 3112 $\frac{9801}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 85, fig. 11.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1871
- 3113 $\frac{9801}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 85, fig. 12.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1871

Ptychopteria eucrate Hall

- 3114 $\frac{9802}{1}$ TYPE Ptychopteria eucrate Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 23, fig. 24.
Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 23, fig. 24.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1871
- 3115 $\frac{9802}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 85, fig. 27.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1871
- 3116 $\frac{9802}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 85, fig. 28.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1871

Ptychopteria eudora Hall

- 3117 $\frac{9803}{1}$ TYPE Ptychopteria eudora Hall. Paleontology of
New York. 1884. v. 5, pt 1, p. 138, pl. 85, fig. 9.
Chemung (?) beds Panama N. Y.
J. Hall, coll. 1871

Ptychopteria expansa Hall

- 3118 $\frac{2804}{1}$ TYPE *Ptychopteria expansa* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 10, 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 10, 11.

Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

Ptychopteria proto Hall

- 3119 $\frac{2805}{1}$ TYPE *Ptychopteria proto* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 12.

Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

- 3120 $\frac{2805}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 14.

Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

Ptychopteria salamanca Hall

- 3121 $\frac{2806}{1}$ TYPE *Ptychopteria salamanca* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 17.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 17.

Chemung (?) beds Rock City, near Salamanca N. Y.

R. P. Whitfield, coll. 1869

- 3122 $\frac{2806}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 18, 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 18, 19.

Chemung (?) beds Rock City, near Salamanca N.Y.

R. P. Whitfield, coll. 1869

- 3123 $\frac{2806}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 23, fig. 20.

Chemung (?) beds Rock City, near Salamanca N. Y.
R. P. Whitfield, coll. 1869

Ptychopteria sao Hall

3124 $\frac{9807}{1}$ TYPE *Ptychopteria sao* Hall. Paleontology of
New York. 1883. v. 5, pt 1, plates and explanations,
pl. 23, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 23, fig. 16.

Chemung (?) beds Panama N. Y.

3125 $\frac{9807}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 23, fig. 23.

Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 23, fig. 23.

Chemung (?) beds Panama N. Y.

3126 $\frac{9807}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 85, fig. 14.

Chemung (?) beds Panama N. Y.

J. Hall, coll. 1871

3127 $\frac{9807}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 85, fig. 15.

Chemung (?) beds Panama N. Y.

J. Hall, coll. 1871

3128 $\frac{9807}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1,
pl. 85, fig. 16.

Chemung (?) beds Panama N. Y.

J. Hall, coll. 1871

3129 $\frac{9807}{6}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 85, fig. 17.

Chemung (?) beds Panama N. Y.

J. Hall, coll. 1871

3130 $\frac{9807}{7}$ TYPE Hall. Paleontology of New York. 1884. v. 5,
pt 1, pl. 85, fig. 18.

Chemung (?) beds Panama N. Y.

J. Hall, coll. 1871

Ptychopteria sinuosa Hall

3131 $\frac{9808}{1}$ TYPE *Ptychopteria sinuosa* Hall. Paleontology
of New York. 1883. v. 5, pt 1, plates and explanations,
pl. 23, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 13.

Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

Ptychopteria spio Hall

3132 $\frac{9809}{1}$ TYPE *Ptychopteria spio* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 137, pl. 85, fig. 19.

Chemung (?) beds

Panama N. Y.

J. Hall, coll. 1871

Ptychopteria thetis Hall

3133 $\frac{9810}{1}$ TYPE *Ptychopteria thetis* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 135, pl. 85, fig. 1.

Chemung (?) beds

Panama N. Y.

J. Hall, coll. 1871

3134 $\frac{9810}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 2.

Chemung (?) beds

Panama N. Y.

J. Hall, coll. 1871

3135 $\frac{9810}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 3.

Chemung (?) beds

Panama N. Y.

J. Hall, coll. 1871

3136 $\frac{9810}{4}$ TYPE? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 4.

Chemung (?) beds

Panama N. Y.

J. Hall, coll. 1871

Ptychopteria trigonalis Hall

3137 $\frac{9811}{1}$ TYPE *Ptychopteria trigonalis* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 140, pl. 85, fig. 34.

Chemung (?) beds

Panama N. Y.

J. Hall, coll. 1870

3138 $\frac{9811}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 35.

Chemung (?) beds

Panama N. Y.

J. Hall, coll. 1870

SANGUINOLITES McCoy

Sanguinolites aeolus see *Sphenotus arcaeformis*

Sanguinolites arcaeformis see *Sphenotus arcaeformis*

Sanguinolites ? *clavulus* *see* *Sphenotus clavulus*
Sanguinolites cuneatus *see* *Sphenotus cuneatus*
Sanguinolites glaucus *see* *Goniophora glaucus*
Sanguinolites hamiltonensis *see* *Goniophora hamiltonensis*

Sanguinolites ida *see* *Goniophora ida*

Sanguinolites perangulatus *see* *Goniophora perangulata*

Sanguinolites rigidus *see* *Sphenotus* ? *arcuatus*

Sanguinolites rigidus *see* *Sphenotus contractus*

Sanguinolites solenoides *see* *Sphenotus solenoides*

Sanguinolites subtortuosus *see* *Sphenotus subtortuosus*

***Sanguinolites* (?) *subtruncatus* Hall**

3139 $\frac{9820}{1}$ TYPE *Edmondia undulata* Hall. *Paleontology of New York*. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 3.

Sanguinolites (?) *subtruncatus* Hall. *Paleontology of New York*. 1885. v. 5, pt 1, p. 508, pl. 64, fig. 3.

Chemung beds Cherry Creek, Chautauqua co. N. Y.

C. Van Deloo, coll. 1863

3140 $\frac{9820}{2}$ TYPE *Edmondia undulata* Hall. *Paleontology of New York*. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 4.

Sanguinolites (?) *subtruncatus* Hall. *Paleontology of New York*. 1885. v. 5, pt 1, pl. 64, fig. 4.

Chemung beds Conewango, Cattaraugus co., N. Y.

C. Van Deloo, coll. 1863

Sanguinolites truncatus *see* *Sphenotus truncatus*

***Sanguinolites* (?) *undulatus* Hall**

3141 $\frac{9821}{1}$ TYPE *Edmondia undulata* Hall. *Preliminary notice of lamellibranchiate shells*, pt 2. 1870. p. 91.

Hall. *Paleontology of New York*. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 2.

Sanguinolites (?) *undulatus* Hall. *Paleontology of New York*. 1885. v. 5, pt 1, pl. 64, fig. 2.

Chemung beds East Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

Sanguinolites ventricosus *see* *Spathella typica*

SCHIZODUS King

Schizodus chemungensis Conrad *var. quadrangularis* Hall

3142 $\frac{9830}{1}$ TYPE *Schizodus quadrangularis* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 96.

Cytherodon (*Schizodus*) *quadrangularis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 31.

Schizodus chemungensis var. quadrangularis Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 454, pl. 75, fig. 31.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Schizodus contractus Hall

3143 $\frac{9831}{1}$ TYPE *Cytherodon* (*Schizodus*) *cuneus* Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 27.

Schizodus contractus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 451, pl. 75, fig. 27.

Hamilton beds

Cayuga lake, N. Y.

H. H. Smith, coll. 1871

3144 $\frac{9831}{2}$ TYPE *Cytherodon* (*Schizodus*) *cuneus* Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 28.

Schizodus contractus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 28.

Hamilton beds

Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Schizodus ellipticus Hall

3145 $\frac{9832}{1}$ TYPE *Schizodus ellipticus* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 96.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 13.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

3146 $\frac{9832}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 14.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Schizodus(?) fissus Hall

- 3147 $\frac{9833}{1}$ TYPE *Paracyclas? elevata* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 37.

Schizodus ? fissa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 447, pl. 72, fig. 37.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3148 $\frac{9833}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 41.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 41.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Schizodus oblatulus Hall

- 3149 $\frac{9834}{1}$ TYPE *Schizodus oblatulus* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 97.

Cytherodon (Schizodus) oblatulus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 43.

Schizodus oblatulus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 43.

Chemung beds

Napoli, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 3150 $\frac{9834}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 44.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 44.

Chemung beds

Napoli N. Y.

C. Van Deloo, coll. 1863

Schizodus patulus Hall

- 3151 $\frac{9835}{1}$ TYPE *Cardiomorpha rotunda* Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 20.

Schizodus patulus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 20.

Chemung beds

Tioga, Tioga co. Pa.

A. Sherwood, coll. 1871

Schizodus quadrangularis see *Schizodus chemungensis var. quadrangularis*

Schizodus rhombeus Hall

- 3152 $\frac{9836}{1}$ **HYPOTYPE** *Cypricardia? rhombea* Hall. Geology of New York; report on the 4th district. 1843. p. 291.
Cytherodon (Schizodus) rhombeus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 19.
Schizodus rhombeus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 19.
 Chemung beds Belvidere, Allegany co. N. Y.
 R. P. Whitfield, coll. 1869
- 3153 $\frac{9836}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 21.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 21.
 Chemung beds Bradford county, Pa.
 A. Sherwood, coll. 1871
- 3154 $\frac{9836}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 22.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 22.
 Chemung beds Bradford county, Pa.
 A. Sherwood, coll. 1871
- 3155 $\frac{9836}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 23.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 23.
 Chemung beds Bradford county, Pa.
 A. Sherwood, coll. 1871

Schizodus tumidus Hall

- 3156 $\frac{9837}{1}$ **TYPE** *Schizodus tumidus* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 94.
Cytherodon tumidus Hall. 23d annual report of the New York state museum of natural history. 1872. pl. 14, fig. 19.
Cytherodon (Schizodus) tumidus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 1, 2.
Schizodus tumidus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 1, 2.
 Onondaga limestone Columbus O.
 R. P. Whitfield, coll. 1865

SPATHELLA Hall

Spathella typica Hall

- 3157 $\frac{9850}{1}$ TYPE *Sanguinolites ventricosus* (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 36.

Spathella typica Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 407, pl. 66, fig. 36.

Chemung beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

SPHENOTUS Hall

Sphenotus arcaeformis Hall

- 3158 $\frac{9860}{1}$ TYPE *Sanguinolites arcaeformis* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 40.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 7.

Sphenotus arcaeformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 7.

Hamilton beds

Delphi, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 3159 $\frac{9860}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 8.

Hamilton beds

Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

- 3160 $\frac{9860}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 9.

Hamilton beds

Delphi N. Y.

G. B. Simpson, coll. 1863

- 3161 $\frac{9860}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 10.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

- 3162 $\frac{9860}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 11.

Hamilton beds

Delphi N. Y.

G. B. Simpson, coll. 1863

- 3163 $\frac{9860}{6}$ TYPE? Sanguinolites aeolus Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 43.

Sphenotus arcaeformis? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 43.

Chemung beds

Smethport Pa.

C. Van Deloo, coll. 1870

Sphenotus (?) arcuatus Hall

- 3164 $\frac{9861}{1}$ TYPE Sanguinolites rigidus (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 18.

Sphenotus (?) arcuatus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 400, pl. 66, fig. 18.

Chemung (?) beds Panama, Chautauqua co. N. Y.

J. Hall, coll. 1870

Sphenotus clavulus Hall

- 3165 $\frac{9862}{1}$ TYPE Sanguinolites? clavulus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 45.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 20.

Sphenotus clavulus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 20.

Chemung beds

Olean, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1864

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 66, fig. 21, 26.

- 3166 $\frac{9862}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 21.

Chemung beds

Olean N. Y.

C. Van Deloo, coll. 1864

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 66, fig. 20, 26.

- 3167 $\frac{9862}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl 66, fig. 22.

Chemung beds (drift) Portville, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

3168 $\frac{9862}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 23.

Chemung beds Portville N. Y.
R. P. Whitfield, coll. 1869

3169 $\frac{9862}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 24.

Chemung beds Portville N. Y.
R. P. Whitfield, coll. 1869

3170 $\frac{9862}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 25.

Chemung beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

3171 $\frac{9862}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 26.

Chemung beds Olean N. Y.
C. Van Deloo, coll. 1864

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 66, fig. 20, 21.

Sphenotus contractus Hall

3172 $\frac{9863}{1}$ HYPOTYPE Cypricardia contracta Hall. Geology of New York; report on the 4th district. 1843. p. 292.

Sanguinolites rigidus (White & Whitfield)
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 4.

Sphenotus contractus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 4.

Chemung beds Belmont, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

- 3173 $\frac{9863}{2}$ **HYPOTYPE** *Sanguinolites rigidus* (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 13.
Sphenotus contractus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 13.
 Chemung beds Cherry Creek, Chautauqua co. N. Y.
 C. Van Deloo, coll. 1863
- 3174 $\frac{9863}{3}$ **HYPOTYPE** *Sanguinolites rigidus* (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 15.
Sphenotus contractus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 15.
 Chemung beds Cherry Creek N. Y.
 C. Van Deloo, coll. 1863
- 3175 $\frac{9863}{4}$ **HYPOTYPE?** *Sanguinolites rigidus* (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 16.
Sphenotus contractus ? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 16.
 Chemung beds Portville, Cattaraugus co. N. Y.
 R. P. Whitfield, coll. 1869
- 3176 $\frac{9863}{5}$ **HYPOTYPE?** *Sanguinolites rigidus* (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 17.
Sphenotus contractus ? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 17.
 Chemung beds Randolph, Cattaraugus co. N. Y.
 C. Van Deloo, coll. 1863
- 3177 $\frac{9863}{6}$ **HYPOTYPE?** *Sanguinolites rigidus* (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 19.
Sphenotus contractus ? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 19.
 Chemung beds Near Olean N. Y.
 C. Van Deloo, coll. 1863
- 3178 $\frac{9863}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 94, fig. 2.
 Chemung beds Warren Pa.
 C. E. Beecher, coll. 1884

Sphenotus cuneatus Conrad (sp.)

- 3179 $\frac{9864}{1}$ TYPE *Pterinea cuneata* Conrad. Annual report of the New York state geological survey. 1838. p. 116.
Sanguinolites cuneatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 12.
Sphenotus cuneatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 12.
 Hamilton beds Summit, Schoharie co. N. Y.
 C. Van Deloo, coll. 1862

Sphenotus solenoides Hall

- 3180 $\frac{9865}{1}$ TYPE *Sanguinolites solenoides* Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 38.
 Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 21.
Sphenotus solenoides Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 21.
 Hamilton beds Delphi N. Y.
 G. B. Simpson, coll. 1863
- 3181 $\frac{9865}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 22, 29.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 22, 29.
 Hamilton beds Canandaigua lake, N. Y.
 R. P. Whitfield and J. W. Hall, coll. 1858
- 3182 $\frac{9865}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 23.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 23.
 Hamilton beds Hamilton, Madison county, N. Y.
- 3183 $\frac{9865}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 24.
 Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 24.
 Hamilton beds Canandaigua lake, N. Y.
 C. A. White and C. Van Deloo, coll. 1860
- 3184 $\frac{9865}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 27.

Hamilton beds Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

3185 $\frac{9865}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 28.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Sphenotus subtortuosus Hall

3186 $\frac{9866}{1}$ TYPE Sanguinolites subtortuosus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 41

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 19.

Sphenotus subtortuosus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 19.

Hamilton beds York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Sphenotus truncatus Conrad (sp.)

3187 $\frac{9867}{1}$ HYPOTYPE Cypricardites truncata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 244.

Sanguinolites truncatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 5.

Sphenotus truncatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 5.

Hamilton beds Near Spafford Corners, Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

SPIRODOMUS Beecher

Spirodomus insignis Beecher

3188 $\frac{9880}{1}$ TYPE Spirodomus insignis Beecher. 39th annual report of the New York state museum of natural history. 1886. p. 162, pl. 12, fig. 1.

Waverly beds

Warren Pa.

C. E. Beecher, donor

- 3189 $\frac{9880}{2}$ TYPE Beecher. 39th annual report of the New York state museum of natural history. 1886. pl. 12, fig. 2-5.
Waverly beds Warren Pa.
C. E. Beecher, donor

TECHNOPHORUS S. A. Miller

Technophorus cancellatus Ruedemann

- 3190 $\frac{9890}{1}$ TYPE *Technophorus cancellatus* Ruedemann.
New York state museum bulletin 42. 1901. p. 572, pl. 1,
fig. 19, 20
Upper Utica shale Green Island, Albany co. N. Y.
R. Ruedemann, coll. 1900
- 3191 $\frac{9890}{2}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 21.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900
- 3192 $\frac{9890}{3}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 22.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900
- 3193 $\frac{9890}{4}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 23.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900
- 3194 $\frac{9890}{5}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 24, 25.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900

TELLINOMYA Hall

Tellinomya ? *equilatera* *see* *Tellinomya* ?
(*Ctenodonta* ?) *equilatera*

Tellinomya* ? (*Ctenodonta* ?) *equilatera Hall

- 3195 $\frac{9900}{1}$ TYPE *Tellinomya* ? *equilatera* Hall. Paleontology of New York. 1852. 2:330, pl. 75, fig. 1a, 1c, 1d.
Coralline (Cobleskill) limestone Schoharie N. Y.
Tellinomya gibbosa *see* *Tellinomya* (*Ctenodonta*) *gibbosa*

Tellinomya* (*Ctenodonta*) *gibbosa Hall

- 3196 $\frac{9901}{1}$ PLASTOTYPE *Tellinomya gibbosa* Hall. Paleontology of New York. 1847. 1:153, pl. 34, fig. 5a, 5b.
Trenton limestone Middleville, Herkimer co. N. Y.

Tellinomya (Ctenodonta) levata Hall (sp.)

3197 $\frac{9902}{1}$ TYPE *Nucula levata* Hall. Paleontology of New York. 1847. 1:150, pl. 34, fig. 1a, 1b.

Trenton limestone Middleville, Herkimer co. N. Y.

Tellinomya nasuta *see* *Tellinomya* (Ctenodonta) *nasuta*

Tellinomya (Ctenodonta) nasuta Hall

3198 $\frac{9903}{1}$ PLASTOTYPE *Tellinomya nasuta* Hall. Paleontology of New York. 1847. 1:152, pl. 34, fig. 3b, 3c.

Trenton limestone Watertown N. Y.

Tellinomya sanguinolaroidea *see* *Tellinomya* (Ctenodonta) *sanguinolaroidea*

Tellinomya (Ctenodonta) sanguinolaroidea Hall

3199 $\frac{9904}{1}$ PLASTOTYPE *Tellinomya sanguinolaroidea* Hall Paleontology of New York. 1847. 1:152, pl. 34, fig. 4a, 4b.

Trenton limestone Middleville, Herkimer co. N. Y.

Tellinomya subrecta Clarke

3200 $\frac{9905}{1}$ TYPE *Tellinomya subrecta* Clarke. Archivos do Museu nacional do Rio de Janeiro. 1899. 10:17, pl. 2, fig. 16.

Middle Siluric Rio Trombetas, Brazil
O. A. Derby, donor

TELLINOPSIS Hall**Tellinopsis submarginata** Conrad (sp.)

3201 $\frac{9910}{1}$ HYPOTYPE *Nuculites submarginata* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:249.

Tellinopsis submarginata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 21.

Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

3202 $\frac{9910}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 24.

Hamilton beds Otisco lake, N. Y.
G. B. Simpson, coll. 1863

3203 $\frac{9910}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883.
v. 5, pt 1, plates and explanations, pl. 76, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 26.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

3204 $\frac{9910}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 76, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 27.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3205 $\frac{9910}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 76, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 29.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

3206 $\frac{9910}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 76, fig. 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 30.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

3207 $\frac{9910}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5,
pt 1, plates and explanations, pl. 76, fig. 31

Hall. Paleontology of New York. 1885. v. 5, pt 1,
pl. 76, fig. 31.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

GASTROPODA

BELLEROPHON Montfort

Bellerophon auriculatus Hall

3208 $\frac{10000}{1}$ TYPE *Bellerophon auriculatus* Hall. Paleon-
tology of New York. 1852. 2: 334, pl. 76, fig. 7a, 7b.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Bellerophon bilobatus *var. corrugatus* Hall

- 3209 $\frac{10001}{1}$ TYPE *Bellerophon bilobatus* *var. corrugatus* Hall. Paleontology of New York. 1843. 1:185, pl. 40, fig. 6b, 6c.

Trenton limestone Middleville, Herkimer co. N. Y.

Bellerophon brevilineatus Conrad

- 3210 $\frac{10002}{1}$ HYPOTYPE *Bellerophon brevilineatus* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:269.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 5.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

- 3211 $\frac{10002}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 6.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

Bellerophon cancellatus Hall

- 3212 $\frac{10003}{1}$ TYPE *Bellerophon cancellatus* Hall. Paleontology of New York. 1847. 1:307, pl. 83, fig. 10a, 10b.
Lorraine shales Waterford N. Y.

Bellerophon crenistria (?) Hall

- 3213 $\frac{10004}{1}$ TYPE *Bellerophon crenistria* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 11.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 116, pl. 25, fig. 16.

Hamilton shales Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

- 3214 $\frac{10004}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 25, fig. 18.

Hamilton shales Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

Bellerophon curvilineatus Conrad

- 3215 $\frac{10005}{1}$ HYPOTYPE *Bellerophon curvilineatus* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:269.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 6, fig. 8.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 29, 30.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig. 2, 3

Onondaga limestone

Schoharie N. Y.

3216 $\frac{10005}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 27.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig. 4.

Onondaga limestone

Schoharie N. Y.

3217 $\frac{10005}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 25.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig. 5.

Onondaga limestone

Schoharie N. Y.

3218 $\frac{10005}{4}$ HYPOTYPE Hall. 15th annual report of the New York state cabinet of natural history, 1862. pl. 6, fig. 9.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 26.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig. 6.

Onondaga limestone

Schoharie N. Y.

Bellerophon helena Hall

3219 $\frac{10006}{1}$ TYPE Bellerophon helena Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 114, pl. 24, fig. 11.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858.

Bellerophon hyalinus Hall

3220 $\frac{10007}{1}$ TYPE Bellerophon hyalina Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 99, pl. 26, fig. 4.

Onondaga limestone Jamesville, Onondaga co. N. Y.

C. A. White, coll. 1861

On slab with *Coleolus crenatocinctum*, Pal. N. Y. v. 5, pt 2, pl. 32, fig. 1.

Bellerophon leda Hall

3221 $\frac{10008}{1}$ HYPOTYPE Bellerophon leda Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 30.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 2.

Hamilton shales Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

3222 $\frac{10008}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 3.

Hamilton shales Pratt's falls, Onondaga co. N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

3223 $\frac{10008}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 4.

Hamilton shales Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

3224 $\frac{10008}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 6, 7.

Hamilton shales Cayuga lake, N. Y.

H. H. Smith, coll. 1871

3225 $\frac{10008}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 8.

Hamilton shales Fabius village, N. Y.

G. B. Simpson, coll. 1863

3226 $\frac{10008}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 9, 10.

Hamilton shales Cayuga lake, N. Y.

J. W. Hall, coll. 1866

3227 $\frac{10008}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 11.

Hamilton shales Cayuga lake, N. Y.

H. H. Smith, coll. 1871

3228 $\frac{10008}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 12.

Hamilton shales Cayuga lake, N. Y.

J. W. Hall, coll. 1866

- 3229 $\frac{10008}{9}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 24.

Hamilton shales Sherburne creek, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Bellerophon maera Hall

- 3230 $\frac{10009}{1}$ HYPOTYPE Bellerophon maera Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, explanation of pl. 22.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 119, pl. 26, fig. 19.

Chemung beds

Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

- 3131 $\frac{10009}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 21.

Chemung beds

Tioga village, Tioga co. Pa.

A. Sherwood, coll. 1871

Bellerophon nactus Hall

- 3232 $\frac{10010}{1}$ TYPE Bellerophon nactus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 121, pl. 26, fig. 17.

Chemung beds

Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

- 3233 $\frac{10010}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 18.

Chemung beds

Belmont, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Bellerophon otsego Hall

- 3234 $\frac{10011}{1}$ TYPE Bellerophon otsego Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 32.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 22, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 24, fig. 12.

Hamilton beds

Schoharie N. Y.

Bellerophon patulus Hall

- 3235 $\frac{10012}{1}$ HYPOTYPE Bellerophon patulus Hall. Geology of New York; report on the 4th district. 1843. p. 196.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 23, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 22, fig. 19.

Hamilton shales Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

3236 $\frac{10012}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 23, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 22, fig. 18.

Hamilton beds Sherburne, Chenango co. N. Y.

3237 $\frac{10012}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 23, fig. 6, 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 22, fig. 17, 26.

Hamilton shales Canandaigua lake, N. Y.

3238 $\frac{10012}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 23, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 22, fig. 28.

Hamilton shales Cayuga lake, N. Y.

H. H. Smith, coll. 1871

3239 $\frac{10012}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 23, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 22, fig. 27.

Hamilton shales Cayuga lake, N. Y.

H. H. Smith, coll. 1871

3240 $\frac{10012}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 23, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 22, fig. 20; pl. 26, fig. 12.

Hamilton shales Cayuga lake, N. Y.

H. H. Smith, coll. 1871

3241 $\frac{10012}{7}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 22, fig. 22.

Hamilton shales Onondaga county, N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

3242 $\frac{10012}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 22, fig. 23, 29.

Hamilton shales Delphi N. Y.

C. Van Deloo and H. H. Smith, coll. 1873

- 3243 $\frac{10012}{9}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 22, fig. 30.
Hamilton beds Schoharie county, N. Y.
J. W. Hall and G. B. Simpson, coll. 1869.
- 3244 $\frac{10012}{10}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 23, fig. 11.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 24, fig. 3.
Hamilton beds Sherburne, Chenango co. N. Y.
- 3245 $\frac{10012}{11}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 24, fig. 5.
Hamilton shales Canandaigua lake, N. Y.
- 3246 $\frac{10012}{12}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 24, fig. 6.
Hamilton shales Canandaigua lake, N. Y.
- 3247 $\frac{10012}{13}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 24, fig. 7.
Hamilton shales Canandaigua lake, N. Y.
- 3248 $\frac{10012}{14}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 24, fig. 8.
Hamilton shales Canandaigua lake, N. Y.
- 3249 $\frac{10012}{15}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 24, fig. 10.
Hamilton shales Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866.

Bellerophon rotaline Hall

- 3250 $\frac{10013}{1}$ TYPE *Bellerophon rotaline* Hall. Paleontology
of New York. 1879. v. 5, pt 2, p. 115, pl. 26, fig. 8.
Hamilton shales Cayuga lake, N. Y.
H. H. Smith, coll. 1871

Bellerophon rudis Hall

- 3251 $\frac{10014}{1}$ TYPE *Bellerophon rudis* Hall. Descriptions of
new species of fossils from the Upper Helderberg, Hamil-
ton and Chemung groups. 1861. p. 29.
Hall. Illustrations of Devonian fossils. 1876. Gaster-
opoda, pl. 23, fig. 15.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 24, fig. 13.
Hamilton beds Fultonham, Schoharie co. N. Y.
J. Gebhard purchase

3252 $\frac{10014}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 23, fig. 13.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 24, fig. 14.

Hamilton beds Fultonham N. Y.

3253 $\frac{10014}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 23, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 24, fig. 15.

Hamilton beds Fultonham N. Y.

Bellerophon thalia Hall

3254 $\frac{10015}{1}$ TYPE *Bellerophon thalia* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 32.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 25, fig. 1.

Hamilton shales York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

3255 $\frac{10015}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 25, fig. 2.

Hamilton shales Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Bellerophon (*Phragmostoma*?) *tricarinata* see *Bellerophon triliratus juvenis*?

Bellerophon triliratus juvenis? Hall

3256 $\frac{10016}{1}$ HYPOTYPE *Bellerophon* (*Phragmostoma*?) *tricarinata* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, explanation of pl. 22.

Bellerophon triliratus juvenis? Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 118, pl. 26, fig. 15.

Chemung beds Nichols, Tioga co. N. Y.

A. Sherwood, coll. 1871

3257 $\frac{10016}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 16.

Chemung beds Nichols N. Y.

A. Sherwood, coll. 1871

BUCANIA Hall**Bucania** sp.

- 3258 $\frac{10030}{1}$ TYPE *Bucania* sp. Hall. Paleontology of New York.
1852. 2:334, pl. 76, fig. 5.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

- 3259 $\frac{10030}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2,
pl. 76, fig. 6a, 6b.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

Bucania profunda Hall

- 3260 $\frac{10031}{1}$ TYPE *Bucania profunda* Hall. Paleontology of
New York. 1859. 3:341, pl. 68, fig. 1a, 1b.

Helderbergian Schoharie county, N. Y.

J. Gebhard purchase

Bucania sulcatina Hall

- 3261 $\frac{10032}{1}$ TYPE *Bucania sulcatina* Hall. Paleontology of
New York. 1847. 1:32, pl. 6, fig. 10, 10a.

Chazy limestone Chazy, Clinton co. N. Y.

Calceola plicata see *Platyceras plicatum*

CYCLONEMA Hall

Cyclonema crenistria see *Cyclonema doris*

Cyclonema doris Hall

- 3262 $\frac{10040}{1}$ HYPOTYPE *Pleurotomaria doris* Hall. Descrip-
tions of new species of fossils from the Upper Helderberg,
Hamilton and Chemung groups. 1861. p. 15.

Cyclonema crenistria Hall. Illustrations of
Devonian fossils. 1876. Gasteropoda, pl. 12, fig. 23.

Cyclonema doris Hall. Paleontology of New
York. 1879. v. 5, pt 2, pl. 12, fig. 23.

Schoharie grit Schoharie N. Y.

Cyclonema obsolescens

- 3263 $\frac{10041}{1}$ TYPE *Cyclonema obsoleta* Hall. Illustrations of
Devonian fossils. 1876. Gasteropoda, pl. 12, fig. 37 (not
described).

Cyclonema (obsoleta) obsolescens Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 38, pl. 12,
fig. 37.

Chemung beds

Southern New York

Cyclonema obsoleta *see* *Cyclonema obsolescens*

***Cyclonema ? Pleurotomaria ?* sp.**

- 3264 $\frac{10042}{1}$ TYPE *Cyclonema ? Pleurotomaria ?* sp. Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 12, fig. 26.

Cyclonema ? Pleurotomaria ? sp. Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 12, fig. 26.

Hamilton beds Leonardsville, Madison co. N. Y.

Dr Crandall, donor. 1857

CYRTOLITES Conrad

***Cyrtolites expansus* Hall**

- 3265 $\frac{10060}{1}$ TYPE *Cyrtolites ? expansus* Hall. Paleontology of New York. 1859. 3:479, pl. 114, fig. 5a, 5b.

Oriskanian Schoharie county, N. Y.

- 3266 $\frac{10060}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 20, 21.

Oriskanian Becraft mountain, Hudson N. Y.

- 3267 $\frac{10060}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 22.

Oriskanian Becraft mountain, Hudson N. Y.

- 3268 $\frac{10060}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 23.

Oriskanian Becraft mountain, Hudson N. Y.

CYRTONELLA Hall

***Cyrtionella horrida* Clarke**

- 3269 $\frac{10070}{1}$ TYPE *Cyrtionella horrida* Clarke. 12th annual report of the New York state geologist. 1893. p. 48, figure.

Onondaga limestone Waverly Ind.

CYRTOSPIRA Ulrich

***Cyrtospira abbreviata* Hall (sp.)**

- 3270 $\frac{10080}{1}$ TYPE *Subulites abbreviatus* Hall. 3d annual report of the New York state museum of natural history. 1850. p. 180, pl. 3, fig. 2a.

Trenton limestone Watertown, Jefferson co. N. Y.

- 3271 $\frac{10080}{2}$ TYPE Hall. 3d annual report of the New York state museum of natural history. 1850. pl. 3, fig. 2b, 2c.

Trenton limestone Watertown N. Y.

Cyrtospira attenuata Ruedemann

- 3272 $\frac{10081}{1}$ TYPE *Cyrtospira attenuata* Ruedemann. New York state museum bulletin 49. 1901. p. 35, pl. 2, fig. 8.
Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

DIAPHOROSTOMA Fischer**Diaphorostoma** sp.

- 3273 $\frac{10100}{1}$ HYPOTYPE *Platyostoma* sp. Hall. Paleontology of New York. 1852. 2:333, pl. 76, fig. 1.
Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Diaphorostoma aplatum Hall (sp.)

- 3274 $\frac{10101}{1}$ TYPE *Platyostoma aplata* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 11, fig. 9.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 26, pl. 11, fig. 9.
Schoharie grit Schoharie N. Y.

Diaphorostoma desmatum Clarke

- 3275 $\frac{10102}{1}$ TYPE *Diaphorostoma desmata* Clarke. New York state museum memoir 3. 1900. p. 29, pl. 3, fig. 13-15.

Oriskanian

Becraft mountain, Hudson N. Y.

- 3276 $\frac{10102}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 16.

Oriskanian

Becraft mountain, Hudson N. Y.

- 3277 $\frac{10102}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 17.

Oriskanian

Becraft mountain, Hudson N. Y.

- 3278 $\frac{10102}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 18.

(Oriskanian

Becraft mountain, Hudson N. Y.

- 3279 $\frac{10102}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 19.

Oriskanian

Becraft mountain, Hudson N. Y.

Diaphorostoma euomphaloides Hall (sp.)

- 3280 $\frac{10103}{1}$ TYPE *Platyostoma euomphaloides* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 27-29.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 25, pl. 10, fig. 27-29.

Hamilton shales

York, Livingston co. N. Y.

C. Van Deloo, coll. 1865

Diaphorostoma furmanianum Hartt & Rathbun (sp.)

3281 $\frac{10104}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Holopea furmani-*
ana Hartt & Rathbun. Annals of the New York lyceum
of natural history. 1875. 11:115.

Diaphorostoma furmanianum Clarke. Archi-
vos do Museu nacional do Rio de Janeiro. 1899. v. 10,
pl. 4, fig. 10.

Eréré sandstone (Middle Devonic)

Eréré, Pará, Brazil

O. A. Derby, donor

Diaphorostoma lineatum Conrad (sp.)

3282 $\frac{10105}{1}$ HYPOTYPE *Platyostoma lineata* Conrad. Journal
of the Academy of natural sciences of Philadelphia. 1842.
8: 276.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 7.

Onondaga limestone

Schoharie N. Y.

3283 $\frac{10105}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 9, fig. 8.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 8.

Onondaga limestone

Cayuga, Ontario

J. De Cew, coll. 1866

3284 $\frac{10105}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 9, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 9.

Onondaga limestone

Williamsville, Erie co. N. Y.

3285 $\frac{10105}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 9, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 10.

Onondaga limestone

Williamsville N. Y.

3286 $\frac{10105}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 9, fig. 11.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 11.

Hamilton shales Geneseo, Livingston co. N. Y.
C. Van Deloo, coll. 1865

3287 $\frac{10105}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.

Gasteropoda, pl. 9, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 14.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3288 $\frac{10105}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.

Gasteropoda, pl. 9, fig. 16-18.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 16-18.

Hamilton shales Canandaigua lake, N. Y.

3289 $\frac{10105}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.

Gasteropoda, pl. 9, fig. 20, 21.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 10, fig. 20, 21.

Chemung beds Southwestern New York

Diaphorostoma lineatum var. amplum Hall (sp.)

3290 $\frac{10106}{1}$ TYPE *Platyostoma lineata* var. *ampla* Hall.

Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9,
fig. 25, 26.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 23, pl. 10, fig. 25, 26.

Hamilton shales Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Diaphorostoma lineatum var. callosum Hall (sp.)

3291 $\frac{10107}{1}$ TYPE *Platyostoma* var. *callosa* Hall. Illustrations

of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 22, 23.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 23, pl. 10, fig. 22, 23.

Hamilton shales Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Diaphorostoma turbinatum Hall (sp.)

3292 $\frac{10108}{1}$ HYPOTYPE *Platyostoma turbinata* Hall. 14th

annual report of the New York state cabinet of natural
history. 1861. p. 106.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 10, fig. 12, 13.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 9, fig. 12, 13.

Onondaga limestone

Schoharie N. Y.

Diaphorostoma turbinatum var. Hall (sp.)

3293 $\frac{101109}{1}$ TYPE *Platyostoma turbinata* var. Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 10, fig. 28-30.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 27, pl. 9, fig. 28-30.

Hamilton shales

York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Diaphorostoma ventricosum Conrad (sp.)

3294 $\frac{101110}{1}$ HYPOTYPE *Platyceras ventricosum* Conrad. Annual report on the Paleontology of New York. 1840. p. 206.

Platyostoma ventricosa Hall. Paleontology of New York. 1859. v. 3, pl. 115, fig. 8.

Oriskanian

Schoharie N. Y.

3295 $\frac{101110}{2}$ HYPOTYPE *Diaphorostoma ventricosum* Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 25.

Oriskanian

Becraft mountain, Hudson N. Y.

3296 $\frac{101110}{3}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 26, 28.

Oriskanian

Becraft mountain, Hudson N. Y.

3297 $\frac{101110}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 27.

Oriskanian

Becraft mountain, Hudson N. Y.

Eccyliomphalus comes see *Phanerotinus laxus*

ECCYLIOPTERUS Remelé

Eccyliopterus spiralis Ruedemann

3298 $\frac{101120}{1}$ TYPE *Eccyliopterus spiralis* Ruedemann. New York state museum bulletin 49. 1901. p. 34, pl. 2, fig. 9, 10.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

EUOMPHALUS Sowerby

Euomphalus clymenioides *see* *Straparollus clymenioides*

Euomphalus (*Straparollus*) *clymenioides* *see* *Straparollus clymenioides*

Euomphalus decewi *see* *Pleuronotus decewi*

Euomphalus disjunctus Hall

3299 $\frac{10130}{1}$ TYPE *Euomphalus disjunctus* Hall. Paleontology of New York. 1859. 3:340, pl. 65, fig. 8.

Helderbergian

Carlisle, Schoharie co. N. Y.

J. Gebhard purchase

Euomphalus eboracensis *see* *Phanerotinus eboracensis*

Euomphalus (*Phanerotinus*) *eboracensis* *see* *Phanerotinus eboracensis*

Euomphalus hecale *see* *Straparollus hecale*

Euomphalus (*Straparollus*) *hecale* *see* *Straparollus hecale*

Euomphalus (*Straparollus*) *hecale* var. *corpulens* *see* *Straparollus hecale* var. *corpulens*

Euomphalus inops *see* *Straparollus inops*

Euomphalus (*Straparollus*) *inops* *see* *Straparollus inops*

Euomphalus laxus *see* *Phanerotinus laxus*

Euomphalus (*Phanerotinus*) *laxus* *see* *Phanerotinus laxus*

Euomphalus rudis *see* *Straparollus rudis*

Euomphalus (*Straparollus*) *rudis* *see* *Straparollus rudis*

Euomphalus tioga Hall

3300 $\frac{10131}{1}$ HYPOTYPE *Euomphalus tioga* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 15, fig. 9, 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 56, pl. 15, fig. 9, 10.

Chemung beds

Nichols, Tioga co. N. Y.

3301 $\frac{10131}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 27, fig. 8.

Chemung beds

Nichols N. Y.

Euomphalus uniangulatus Hall

3302 $\frac{10132}{1}$ PLASTOTYPE *Euomphalus uniangulatus* Hall.
Paleontology of New York. 1847. 1:9, pl. 3, fig. 1.

Beekmantown limestone Saratoga Springs N. Y.

3303 $\frac{10132}{2}$ PLASTOTYPE Hall. Paleontology of New York. 1847.
v. 1, pl. 3, fig. 1a.

Beekmantown limestone Saratoga Springs N. Y.

Holopea Hall**Holopea danai** Hall

3304 $\frac{10140}{1}$ TYPE *Holopea danai* Hall. Paleontology of New
York. 1859. 3:295, pl. 54, fig. 14.

Helderbergian Schoharie N. Y.

Holopea? elongata Hall

3305 $\frac{10141}{1}$ TYPE *Holopea? elongata* Hall. Paleontology of
New York. 1859. 3:295, pl. 54, fig. 6.

Helderbergian Schoharie N. Y.

3306 $\frac{10141}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3,
pl. 54, fig. 7.

Helderbergian Schoharie N. Y.

Holopea furmaniana see *Diaphorostoma fur-*
manianum

Holopea obliqua Hall

3307 $\frac{10142}{1}$ TYPE *Holopea obliqua* Hall. Paleontology of
New York. 1847. 1:170, pl. 37, fig. 2d.

Trenton limestone Watertown, Jefferson co. N. Y.

Holopea obscura Hall

3308 $\frac{10142}{1}$ TYPE *Turbo? obscura* Hall. Paleontology of
New York. 1847. 1:12, pl. 3, fig. 8.

Beekmantown limestone Fort Plain,
Montgomery co. N. Y.

Holopea paludiniformis Hall

3309 $\frac{10144}{1}$ TYPE *Pleurotomaria* Emmons. Geology of New
York; report on the 2d district. 1842. p. 397, fig. 1.

Holopea paludiniformis Hall. Paleontology
of New York. 1847. 1:171, pl. 37, fig. 3a, 3b.

Trenton limestone Watertown, Jefferson co. N. Y.

Holopea ventricosa Hall

- 3310 $\frac{10145}{1}$ PLASTOTYPE *Holopea ventricosa* Hall. Paleontology of New York. 1847. 1:171, pl. 37, fig. 4a, 4b.
Trenton limestone Middleville, Herkimer co. N. Y.

LIOSPIRA Ulrich & Scofield**Liospira americana** Billings (sp.)

- 3311 $\frac{10150}{1}$ HYPOTYPE *Pleurotomaria americana* Billings. Canadian naturalist and geologist. 1860. 5:164.

Liospira americana Ruedemann. New York state museum bulletin 49. 1901. pl. 2, fig. 7.

Trenton conglomerate

Rysedorph hill,

Rensselaer co. N. Y.

C. Schuchert, coll.

LOXONEMA Phillips**Loxonema** ? sp.

- 3312 $\frac{10160}{1}$ TYPE *Loxonema* ? sp. Grabau. Bulletin of the Geological society of America. 1900. 11:370, pl. 22, fig. 5.
Manlius limestone Buffalo, Erie co. N. Y.

A. W. Grabau, donor

Loxonema sp. ? see *Loxonema bellona*

Loxonema bellona Hall

- 3313 $\frac{10161}{1}$ TYPE *Loxonema* sp. ? Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 4.

Loxonema bellona Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 46, pl. 14, fig. 4.

Hamilton shales

Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3314 $\frac{10161}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 14, fig. 5.

Hamilton shales

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Loxonema breviculum Hall

- 3315 $\frac{10162}{1}$ TYPE *Loxonema breviculum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 132, pl. 28, fig. 12.

Hamilton shales

Hamburg, Erie co. N. Y.

C. A. White, coll. 1860

Loxonema delphicola Hall

- 3316 $\frac{10162}{1}$ HYPOTYPE *Loxonema delphicola* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 21.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 47, pl. 13, fig. 21.

Hamilton shales

Cayuga lake, N. Y.

H. H. Smith, coll. 1871

- 3317 $\frac{10162}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 25.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 25.

Hamilton shales

Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3318 $\frac{10162}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 14, fig. 1.

Hamilton shales

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3319 $\frac{10162}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 14, fig. 2.

Hamilton shales

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1861

- 3320 $\frac{10162}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 15.

Hamilton shales

Pompey Hill, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

Loxonema fitchi Hall

- 3321 $\frac{10164}{1}$ TYPE *Loxonema fitchi* Hall. Paleontology of New York. 1859. 3: 296, pl. 54, fig. 11b.

Helderbergian

Carlisle, Schoharie co. N. Y.

Loxonema hamiltoniae Hall

- 3322 $\frac{10165}{1}$ HYPOTYPE *Loxonema nexilis* (Phil.) Hall. Geology of New York; report on the 4th district. 1843. p. 201.

Loxonema hamiltoniae Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 45, pl. 28, fig. 6.

Hamilton shales

Ovid, Seneca co. N. Y.

- 3323 $\frac{10165}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 28, fig. 7.
Marcellus shale New York

Loxonema laxum Hall

- 3324 $\frac{10166}{1}$ **TYPE** *Loxonema terebra?* Hall. Illustrations of
Devonian fossils. 1876. Gasteropoda, pl. 18, fig. 12.
Loxonema laxa Hall. Paleontology of New
York. 1879. v. 5, pt 2, p. 49, pl. 18, fig. 12.
Chemung beds Nichols, Tioga co. N. Y.

Loxonema minusculum Hall

- 3325 $\frac{10167}{1}$ **TYPE** *Loxonema minuscula* Hall. Paleontology
of New York. 1879. v. 5, pt 2, pl. 28, fig. 14.
Marcellus shale Cherry Valley N. Y.
J. W. Hall, coll. 1877
Loxonema nexilis *see* *Loxonema hamiltoniae*

Loxonema? obtusum Hall

- 3326 $\frac{10168}{1}$ **TYPE** *Loxonema? obtusa* Hall. Paleontology of
New York. 1879. 3:297, pl. 54, fig. 10.
Helderbergian Schoharie N. Y.

Loxonema postremum Hall

- 3327 $\frac{10169}{1}$ **TYPE** *Loxonema postremum* Hall. Paleontology
of New York. 1879. v. 5, pt 2, p. 132, pl. 28, fig. 13.
Chemung beds Nichols, Tioga co. N. Y.
A. Sherwood, coll. 1871

Loxonema robustum Hall

- 3328 $\frac{10170}{1}$ **TYPE** *Loxonema robusta* Hall. Descriptions of
new species of fossils from the Upper Helderberg, Hamil-
ton and Chemung groups. 1861. p. 24.
Hall. Illustrations of Devonian fossils. 1876. Gaster-
opoda, pl. 13, fig. 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 13, fig. 4.
Schoharie grit Schoharie N. Y.
3329 $\frac{10170}{2}$ **TYPE** Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 13, fig. 5.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 13, fig. 5.
Schoharie grit Schoharie N. Y.

- 3330 $\frac{10170}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 28, fig. 4.
Onondaga limestone Ontario
J. De Cew, coll. 1866

Loxonema sicula Hall

- 3331 $\frac{10171}{1}$ TYPE *Loxonema sicula* Hall. Paleontology of
New York. 1879. v. 5, pt 2, p. 43, pl. 28, fig. 1.
Onondaga limestone Jamesville, Onondaga co. N. Y.
C. A. White, coll. 1860
- 3332 $\frac{10171}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 28, fig. 2.
Onondaga limestone Jamesville N. Y.
C. A. White, coll. 1860
- 3333 $\frac{10171}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 28, fig. 3.
Onondaga limestone Jamesville N. Y.
C. A. White, coll. 1860

Loxonema solidum Hall

- 3334 $\frac{10172}{1}$ TYPE *Loxonema solida* Hall. Descriptions of new
species of fossils from the Upper Helderberg, Hamilton
and Chemung groups. 1861. p. 23.
Hall. Illustrations of Devonian fossils. 1876. Gaster-
opoda, pl. 13, fig. 8.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 13, fig. 8.
Schoharie grit Schoharie N. Y.
- 3335 $\frac{10172}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 13, fig. 9.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 13, fig. 9.
Schoharie grit Schoharie N. Y.

Loxonema? subattenuatum Hall

- 3336 $\frac{10173}{1}$ TYPE *Loxonema? subattenuata* Hall. Descrip-
tions of new species of fossils from the Upper Helderberg,
Hamilton and Chemung groups. 1861. p. 24.
Hall. Illustrations of Devonian fossils. 1876. Gaster-
opoda, pl. 13, fig. 1.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 13, fig. 1.
Schoharie grit Schoharie N. Y.

- 3337 $\frac{10173}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 13, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 13, fig. 2.

Schoharie grit

Schoharie N. Y.

- 3338 $\frac{10173}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 13, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 13, fig. 3.

Schoharie grit

Schoharie N. Y.

- 3339 $\frac{10173}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 28, fig. 5.

Schoharie grit

Schoharie co. N. Y.

J. Gebhard purchase

Loxonema terebra? see *Loxonema laxum*

Maclurea magna see *Maclurites magnus*

Maclurea sordida see *Maclurites sordidus*

Maclurea striatus see *Raphistoma striatum*

MACLURITES Lesueur

Maclurites magnus Lesueur

- 3340 $\frac{10180}{1}$ HYPOTYPE *Maclurites magna* Lesueur. Journal
of the Academy of natural sciences of Philadelphia. 1818.
1:312.

Maclurea magna Hall. Paleontology of New
York. 1847. v. 1, pl. 5, fig. 1a.

Chazy limestone From boulder near Schoharie N. Y.

J. Gebhard purchase

Maclurites sordidus Hall

- 3341 $\frac{10181}{1}$ TYPE *Maclurea sordida* Hall. Paleontology of
New York. 1847. 1:10, pl. 3, fig. 2.

Beekmantown limestone Glens Falls, Warren co. N. Y.

- 3342 $\frac{10181}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 3, fig. 2a.

Beekmantown limestone Glens Falls, Warren co. N. Y.

MACROCHILUS Phillips

Macrocheilus? primaevus see *Macrochilus?*
(*Pleuronema?*) *primaevus*

Macrochilus? (Pleuronema?) primaevus Hall

- 3343 $\frac{10200}{1}$ TYPE *Macrocheilus? primaevus* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 12, fig. 1.

Macrocheilus (Pleuronema?) *primaevus* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 34, pl. 12, fig. 1.

Schoharie grit

Schoharie N. Y.

- 3344 $\frac{10200}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 12, fig. 2, 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 12, fig. 2, 3.

Schoharie grit

Schoharie N. Y.

MACROCHILINA Bayle**Macrochilina onondagensis** Clarke

- 3345 $\frac{10210}{1}$ TYPE *Macrochilina onondagensis* Clarke. New York state museum bulletin 49. 1901. p. 127, fig. 1. Agoniatites limestone Manlius, Onondaga co. N. Y. J. D. Wilson, donor

MURCHISONIA d'Archiac & de Verneuil**Murchisonia? angustata** Hall

- 3346 $\frac{10220}{1}$ TYPE *Murchisonia? angustata* Hall. Paleontology of New York. 1847. 1:41, pl. 10, fig. 2a. Lowville limestone Amsterdam, Montgomery co. N. Y.

Murchisonia? obtusa Hall

- 3347 $\frac{10221}{1}$ TYPE *Murchisonia obtusa* Hall. Paleontology of New York. 1852. 2:333, pl. 76, fig. 3. Coralline (Cobleskill) limestone Schoharie N. Y. J. Gebhard purchase

Murchisonia subfusiformis Hall

- 3348 $\frac{10222}{1}$ HYPOTYPE *Murchisonia subfusiformis* Hall. Paleontology of New York. 1847. 1:180. Hall. 3d annual report of the New York state cabinet of natural history. 1850. pl. 4, fig. 2. Trenton limestone Watertown, Jefferson co. N. Y.

Murchisonia? terebralis Hall

- 3349 $\frac{10223}{1}$ TYPE *Murchisonia? terebralis* Hall. Paleontology of New York. 1852. 2:334, pl. 76, fig. 4. Coralline (Cobleskill) limestone Schoharie N. Y. J. Gebhard purchase

Murchisonia ? varicosa Hall

- 3350 $\frac{10224}{1}$ TYPE *Murchisonia varicosa* Hall. Paleontology of New York. 1847. 1:42, pl. 10, fig. 7a.

Lowville limestone Watertown, Jefferson co. N. Y.

- 3351 $\frac{10224}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 7b.

Lowville limestone Watertown, Jefferson co. N. Y.

Murchisonia ventricosa Hall

- 3352 $\frac{10225}{1}$ TYPE *Murchisonia ventricosa* Hall. Paleontology of New York. 1847. 1:41, pl. 10, fig. 3.

Lowville limestone Tribe's Hill, Montgomery co. N. Y.

NATICOPSIS McCoy**Naticopsis comperta Hall**

- 3353 $\frac{10230}{1}$ TYPE *Naticopsis comperta* Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 29, fig. 5, 6 (not described).

Onondaga limestone

(New York)

Naticopsis gigantea Hall & Whitfield

- 3354 $\frac{10231}{1}$ TYPE *Naticopsis gigantea* Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 238, pl. 12, fig. 8.

Upper Devonian Lime creek, near Hackberry Grove, Ia.

R. P. Whitfield, coll. 1866

- 3355 $\frac{10231}{2}$ TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 12, fig. 9.

Upper Devonian Lime creek, near Hackberry Grove, Ia.

R. P. Whitfield, coll. 1866

- 3356 $\frac{10231}{3}$ TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 12, fig. 10.

Upper Devonian Lime creek, near Hackberry Grove, Ia.

R. P. Whitfield, coll. 1866

ONYCHOCILUS Lindström**Onychochilus nitidulus Clarke**

- 3357 $\frac{10240}{1}$ TYPE *Onychochilus nitidulus* Clarke. 13th annual report of the New York state geologist. 1894. 1:172, pl. 4, fig. 13-15.

Marcellus (Stafford) limestone

Stafford, Genesee co. N. Y.

J. M. Clarke and J. Van Deloo, coll. 1888

- 3358 $\frac{10240}{2}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 16.

Marcellus (Stafford) limestone Stafford, N. Y.

J. M. Clarke and J. Van Deloo, coll. 1888

- 3359 $\frac{10240}{3}$?HYPOTYPE ? Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 20.

Marcellus (Stafford) limestone Plumbottom creek,
Lancaster N. Y.
E. Wood, donor

Ophileta complanata see *Schizostoma complanatum*

Ophileta levata see *Schizostoma levatum*

PALAEACMAEA Hall and Whitfield

***Palaeacmaea typica* Hall**

- 3360 $\frac{10260}{1}$ TYPE: PLASTOTYPE *Palaeacmaea typica* Hall. 23d annual report of the New York state cabinet of natural history 1873. p. 242, pl. 11, fig. 4, 5.

Potsdam sandstone Keeseville N. Y.
R. P. Whitfield, coll. 1867

PHANEROTINUS Sowerby

***Phanerotinus eboracensis* Hall**

- 3361 $\frac{10280}{1}$ TYPE *Euomphalus eboracensis* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 27.

Euomphalus eboracensis Hall. Illustrations of Devonian fossils, 1876: Gasteropoda, pl. 16, fig. 21.

Euomphalus (Phanerotinus) eboracensis Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 21.

Hamilton shales York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3362 $\frac{10280}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 22.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 22.

Hamilton shales York N. Y.

C. A. White and C. Van Deloo, coll. 1860.

- 3363 $\frac{10280}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 23.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 23.

Hamilton shales

York N. Y.

C. A. White and C. Van Deloo, coll. 1860

Phanerotinus laxus Hall

- 3364 $\frac{10281}{1}$ HYPOTYPE *Euomphalus laxus* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 26.

Ecculiomphalus comes Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 8.

Euomphalus (*Phanerotinus*) *laxus* Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 8.

Hamilton shales

Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3365 $\frac{10281}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 17.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 17.

Onondaga limestone

Schoharie N. Y.

PLATYCERAS Conrad

Platyceras argo Hall

- 3366 $\frac{10300}{1}$ TYPE *Platyceras argo* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 11.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 8, fig. 1-3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 8, fig. 1-3.

Onondaga limestone

Williamsville, Erie co. N. Y.

Platyceras attenuatum *see* *Platyceras* (*Orthonychia*) *attenuatum*

Platyceras (Orthonychia) attenuatum Hall

- 3367 $\frac{10301}{1}$ TYPE *Platyceras attenuatum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 2.

Platyceras (*Orthonychia*) *attenuatum* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 1.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

3368 $\frac{10301}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 5, 6.

Hamilton shales Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1858

***Platyceras auriculatum* Hall**

3369 $\frac{10302}{1}$ TYPE *Platyceras auriculatum* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 8-10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 7, pl. 3, fig. 8-10.

Hamilton shales

Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1864

***Platyceras bucculentum* Hall**

3370 $\frac{10303}{1}$ TYPE *Platyceras bucculentum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 5.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 29.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 29.

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

***Platyceras carinatum* Hall**

3371 $\frac{10304}{1}$ TYPE *Platyceras carinatum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 5.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 20, 21.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 2, fig. 20, 21.

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3372 $\frac{10304}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 22-25.

Hall. Paleontology of New York. 1879. v. 5, pt 2, fig. 22-25.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1858

- 3373 $\frac{10304}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 26, 27.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 2, fig. 26, 27.

Hamilton shales

Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

Platyceras conicum see *Platyceras* (*Orthonychia*) *conicum*

***Platyceras* (*Orthonychia*) *conicum* Hall**

- 3374 $\frac{10305}{1}$ TYPE *Platyceras conicum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 3.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 1, fig. 20-22.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 1, fig. 20-22.

Hamilton shales

Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

***Platyceras crassum* Hall**

- 3375 $\frac{10306}{1}$ TYPE *Platyceras crassum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 8.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 7, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 7, fig. 6.

Onondaga limestone

Schoharie county, N. Y.

***Platyceras* (*Orthonychia*) *dentalium* Hall**

- 3376 $\frac{10307}{1}$ TYPE *Platyceras* (*Orthonychia*) *dentalium*. Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 1.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 1, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 1, fig. 3.

Onondaga limestone Williamsville, Erie co. N. Y.

3377 $\frac{10307}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 1, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 1, fig. 7.

Onondaga limestone Schoharie N. Y.

Platyceras dumosum Conrad.

3378 $\frac{10308}{1}$ TYPE *Platyceras dumosum* Conrad. 3d annual report on the paleontology of New York. 1840. p. 205.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 6, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 6, fig. 1.

Onondaga limestone Schoharie N. Y.

3379 $\frac{10308}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 29, fig. 8.

Schoharie grit Schoharie county, N. Y.

J. Gebhard purchase

3380 $\frac{10308}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 20.

Onondaga limestone Schoharie N. Y.

Platyceras echinatum Hall.

3381 $\frac{10309}{1}$ TYPE *Platyceras echinatum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 10.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 5, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 5, fig. 3, 4.

Tully limestone Ovid, Seneca co. N. Y.

Platyceras erectum Hall.

3382 $\frac{10310}{1}$ HYPOTYPE *Acroculia erecta* Hall. Geology of New York; report on the 4th district. 1843. p. 174.

Platyceras erectum Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 2, fig. 5, 6.

Onondaga limestone

Ontario

Platyceras expansus *see* *Strophostylus expansus*

***Platyceras gebhardi* Conrad**

- 3383 $\frac{10311}{1}$ HYPOTYPE *Platyceras gebhardi* Conrad. Annual report on the paleontology of New York. 1840. p. 206. Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 29.
Oriskanian Becraft mountain, Hudson N. Y.

***Platyceras incile* Hall**

- 3384 $\frac{10312}{1}$ TYPE *Platyceras incile* Hall. Paleontology of New York. 1859. 3:332, pl. 63, fig. 10.
Helderbergian Schoharie N. Y.
- 3385 $\frac{10312}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 63, fig. 12.
Helderbergian Schoharie N. Y.

***Platyceras nodosum* Conrad**

- 3386 $\frac{10313}{1}$ HYPOTYPE *Platyceras nodosum* Conrad. Annual report on the paleontology of New York. 1841. p. 56. Hall. Paleontology of New York. 1859. v. 3, pl. 115, fig. 2.
Oriskanian Schoharie N. Y.
- 3387 $\frac{10313}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 116, fig. 1.
Oriskanian Schoharie N. Y.
- 3388 $\frac{10313}{3}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 116, fig. 2.
Oriskanian Schoharie N. Y.
- 3389 $\frac{10313}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 116, fig. 3, 4.
Oriskanian Schoharie N. Y.

***Platyceras perlatum* Hall**

- 3390 $\frac{10314}{1}$ HYPOTYPE *Platyceras perlatum* Hall. Paleontology of New York. 1859. 3:328, pl. 61, fig. 4a, 4b.
Helderbergian Schoharie county, N. Y.

***Platyceras pileiforme* Hall**

- 3391 $\frac{10315}{1}$ TYPE *Platyceras pileiforme* Hall. Paleontology of New York. 1859. 3:332, pl. 61, fig. 3a.
Helderbergian Schoharie N. Y.

Platyceras platystoma Hall

- 3392 $\frac{10316}{1}$ TYPE *Platyceras platystomum* Hall. Paleontology of New York. 1859. 3:326, pl. 60, fig. 2.
Helderbergian Schoharie N. Y.

Platyceras plicatum Conrad (sp.)

- 3393 $\frac{10317}{1}$ HYPOTYPE *Calceola plicata* Conrad. Annual report on the paleontology of New York. 1840. p. 207.

Platyceras plicatum Hall. Paleontology of New York. 1859. v. 3, pl. 64, fig. 2.

Helderbergian

Schoharie N. Y.

- 3394 $\frac{10317}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 64, fig. 5.

Helderbergian

Schoharie N. Y.

Platyceras retrorsum Hall

- 3395 $\frac{10318}{1}$ TYPE *Platyceras retrorsum* Hall. Paleontology of New York. 1859. 3:320, pl. 58, fig. 10a, 10b.

Helderbergian

Albany county, N. Y.

Platyceras retrorsum *var. abnorme* Hall

- 3396 $\frac{10312}{1}$ TYPE *Platyceras retrorsum* *var. abnormis* Hall. Paleontology of New York. 1859. 3:321, pl. 60, fig. 4a-4c.

Helderbergian

Schoharie N. Y.

Platyceras rictum Hall.

- 3397 $\frac{10320}{1}$ TYPE *Platyceras rictum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 7.

Hall. Illustrations of Devonian fossils. 1876. Gastropoda, pl. 4, fig. 12-14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 4, fig. 12-14.

Hamilton shales

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Platyceras sinuatum Hall

- 3398 $\frac{10321}{1}$ TYPE *Platyceras sinuatum* Hall. Paleontology of New York. 1859. 3:314, pl. 55, fig. 5.

Helderbergian

Schoharie N. Y.

Platyceras spirale Hall

- 3399 $\frac{10322}{1}$ TYPE *Platyceras spirale* Hall. Paleontology of New York. 1859. 3:331, pl. 63, fig. 6.

Helderbergian

Schoharie N. Y.

3400 $\frac{10322}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 63, fig. 8.

Helderbergian

Schoharie N. Y.

3401 $\frac{10322}{3}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 63, fig. 9a, 9b.

Helderbergian

Schoharie N. Y.

Platyceras symmetricum Hall

3402 $\frac{10323}{1}$ TYPE *Platyceras symmetricum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 6.

Hall. Illustrations of Devonian fossils. 1876. Gastropoda, pl. 3, fig. 22-24.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 22-24.

Hamilton shales West Bloomfield, Ontario co. N. Y.

Platyceras thetis Hall

3403 $\frac{10324}{1}$ TYPE *Platyceras thetis* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 4.

Hall. Illustrations of Devonian fossils. 1876. Gastropoda, pl. 3, fig. 13, 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 13, 14.

Hamilton shales West Bloomfield, Ontario co. N. Y.

3404 $\frac{10324}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gastropoda, pl. 3, fig. 15.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 15.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

3405 $\frac{10324}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gastropoda, pl. 3, fig. 16.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 16.

Hamilton shales

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Platyceras thetis? *var. subspinosum* Hall

3406 $\frac{10325}{1}$ TYPE *Platyceras thetis?* *var. subspinosum* Hall. Illustrations of Devonian fossils. 1876. Gastropoda, pl. 3, fig. 30.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 9, pl. 3, fig. 30.

Hamilton shales Canandaigua lake, N. Y.

Platyceras trilobatum Hall

3407 $\frac{10326}{1}$ TYPE *Platyceras trilobatum* Hall. Paleontology
of New York. 1859. 3:316, pl. 57, fig. 5a-5c.

Helderbergian Schoharie N. Y.

Platyceras undatum Hall

3408 $\frac{10327}{1}$ TYPE *Platyceras undatum* Hall. Illustrations of
Devonian fossils. 1876. Gasteropoda, pl. 7, fig. 1, 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 17, pl. 7, fig. 1, 2.

Onondaga limestone Schoharie N. Y.

Platyceras ventricosum Conrad

3409 $\frac{10328}{1}$ HYPOTYPE *Platyceras ventricosum* Conrad. An-
nual report on the paleontology of New York. 1840.
p. 206.

Hall. Paleontology of New York. 1859. v. 3, pl. 56,
fig. 3a, 3b.

Helderbergian Schoharie N. Y.

Platyceras ventricosum see *Diaphorostoma*
ventricosum

Platyostoma aplata see *Diaphorostoma* *apla-*
tum

Platyostoma euomphaloides see *Diapho-*
rostoma euomphaloides

Platyostoma lineata see *Diaphorostoma* *linea-*
tum

Platyostoma lineata var. *ampla* see *Dia-*
phorostoma lineatum var. *amplum*

Platyostoma lineata var. *callosa* see *Dia-*
phorostoma lineatum var. *callosum*

Platyostoma turbinata see *Diaphorostoma*
turbinatum

Platyostoma turbinata var. see *Diaphoro-*
stoma turbinatum var.

Platyostoma sp. see *Diaphorostoma* sp.

PLEURONOTUS Hall

Pleuronotus decewi Billings (sp.)

- 3410 $\frac{10340}{1}$ HYPOTYPE *Euomphalus decewi* Billings. Canadian journal. 1861. p. 358.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 15, fig. 1.

Pleuronotus decewi Hall. Paleontology of New York. 1879. v. 5, pt 2, pl 15, fig. 1.

Onondaga limestone

Schoharie N. Y.

PLEUROTOMARIA Defrance

Pleurotomaria *see* *Holopea paludiniformis*

Pleurotomaria (sp. indet.) Hall

- 3411 $\frac{10360}{1}$ HYPOTYPE *Pleurotomaria* sp. indet. Hall. Paleontology of New York. 1847. 1:305, pl. 83, fig. 5a.

Lorraine beds

Turin, Lewis co. N. Y.

- 3412 $\frac{10360}{2}$ HYPOTYPE Hall. Paleontology of New York. 1847. v. 1, pl. 83, fig. 5b.

Lorraine beds

Turin N. Y.

Pleurotomaria ambigua Hall

- 3413 $\frac{10380}{1}$ PLASTOTYPE *Pleurotomaria ambigua* Hall. Paleontology of New York. 1847. 1:176, pl. 38, fig. 3a, 3b.

Trenton limestone

Adams, Jefferson co. N. Y.

Pleurotomaria antiquata Hall

- 3414 $\frac{10381}{1}$ TYPE *Pleurotomaria antiquata* Hall. Paleontology of New York. 1847. 1:31, pl. 7, fig. 1.

Chazy limestone

Chazy, Clinton co. N. Y.

Pleurotomaria arata Hall

- 3415 $\frac{10382}{1}$ TYPE *Pleurotomaria arata* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 14.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 5, fig. 13.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 17, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 17, fig. 7.

Schoharie grit

Schoharie N. Y.

Pleurotomaria capillaria Conrad

- 3416 $\frac{10383}{1}$ HYPOTYPE *Pleurotomaria capillaria* Conrad.
Journal of the Academy of natural sciences of Philadelphia.
1842. 8: 271.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 20.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 20.

Hamilton shales Cayuga lake, N. Y.

J. W. Hall, coll. 1866

- 3417 $\frac{10383}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 21.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 21.

Hamilton shales Cayuga lake, N. Y.

J. W. Hall, coll. 1866

- 3418 $\frac{10383}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 7.

Hamilton shales Cayuga lake, N. Y.

J. W. Hall, coll. 1866

Pleurotomaria capillaria Conrad *var. rustica* Hall

- 3419 $\frac{10384}{1}$ TYPE *Pleurotomaria capillaria* var. *rustica* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 87, pl. 30, fig. 6, 21.

Hamilton shales York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3420 $\frac{10384}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 20.

Hamilton shales York N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3421 $\frac{10384}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 22.

Hamilton shales Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Pleurotomaria doris see *Cyclonema doris*

Pleurotomaria ella Hall

- 3422 $\frac{10385}{1}$ TYPE *Pleurotomaria ella* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 19, fig. 26-29.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 72, pl. 20, fig. 22-25.

Hamilton shales

York N. Y.

C. Van Deloo, coll. 1865

Pleurotomaria filitexta Hall

- 3423 $\frac{10386}{1}$ TYPE *Pleurotomaria filitexta* Hall. Illustrations
of Devonian fossils. 1876. Gasteropoda, pl. 19, fig. 30, 31.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 73, pl. 20, fig. 26, 27.

Hamilton shales

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3324 $\frac{10386}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 30, fig. 15.

Hamilton shales

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3425 $\frac{10386}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 30, fig. 16.

Hamilton shales

Canandaigua lake, N. Y.

- 3426 $\frac{10386}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 30, fig. 17.

Hamilton shales

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Pleurotomaria indenta Hall

- 3427 $\frac{10387}{1}$ HYPOTYPE *Pleurotomaria indenta* Hall. Pale-
ontology of New York. 1847. 1: 176, pl. 38, fig. 2.

Trenton limestone

Middleville, Herkimer co. N. Y.

Pleurotomaria insolita Hall

- 3428 $\frac{10388}{1}$ TYPE *Pleurotomaria insolita* Hall. Illustrations
of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 26.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 81, pl. 21, fig. 17; pl. 30, fig. 3.

Hamilton shales

Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Pleurotomaria isaacsi see *Pleurotomaria mac-*
isaacsi

Pleurotomaria itys Conrad

- 3429 $\frac{10389}{1}$ HYPOTYPE *Pleurotomaria itys* Conrad. Journal
of the Academy of natural sciences of Philadelphia. 1842.
8: 271.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 8.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 8.

Hamilton shales

Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

3430 $\frac{10389}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 12, 13.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 11, 12.

Hamilton shales

Western New York

Pickett collection

3431 $\frac{10389}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 14, 16.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 14, 16.

Hamilton shales

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

3432 $\frac{10389}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 15, 17.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 15, 17.

Hamilton shales

York N. Y.

C. Van Deloo, coll. 1865

***Pleurotomaria itys* var. *tenuispira* Hall**

3433 $\frac{10390}{1}$ TYPE *Pleurotomaria itys* var. *tenuispira* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 87, pl. 30, fig. 5, 25.

Hamilton shales

Eighteen Mile creek, Erie co. N. Y.

C. Van Deloo, coll. 1864

Pleurotomaria lenticularis see *Raphistoma lenticulare*

***Pleurotomaria lucina* Hall**

3434 $\frac{10391}{1}$ HYPOTYPE *Pleurotomaria lucina* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 276.

? Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 24.

Onondaga limestone

Clarence Hollow, Erie co. N. Y.

Pleurotomaria macisaacsi Hall & Whitfield (*emend.*)

- 3435 $\frac{10392}{1}$ TYPE *Pleurotomaria isaacsi* Hall & Whitfield.
23d annual report of the New York state cabinet of natural
history. 1873. p. 238, pl. 12, fig. 6, 7.

Onondaga stage? (Waterloo beds)

Near Raymond station, Ia.

Mr McIsaacs donor, Waterloo Ia.

Pleurotomaria nitella Hall

- 3436 $\frac{10393}{1}$ TYPE *Pleurotomaria nitella* Hall. Paleontology
of New York. 1879. v. 5, pt 2, p. 85, pl. 30, fig. 4, 19.

Onondaga limestone Jamesville, Onondaga co. N. Y.

C. A. White, coll. 1860

Pleurotomaria? nodulosa Hall

- 3437 $\frac{10394}{1}$ TYPE *Pleurotomaria? nodulosa* Hall. Paleon-
tology of New York. 1837. 1:44, pl. 10, fig. 10.

Lowville limestone Tribes Hill, Montgomery co. N. Y.

Pleurotomaria? obsoleta Hall

- 3438 $\frac{10395}{1}$ TYPE *Pleurotomaria? obsoleta* Hall. Paleon-
tology of New York. 1847. 1:44, pl. 10, fig. 11.

Lowville limestone Watertown, Jefferson co. N. Y.

Pleurotomaria planidorsalis Hall

- 3439 $\frac{10396}{1}$ TYPE *Pleurotomaria planidorsalis* Hall. Il-
lustrations of Devonian fossils. 1876. Gasteropoda, pl. 20,
fig. 28, 29.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 82, pl. 20, fig. 21, 22.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

Pleurotomaria quadricarinata Hall

- 3440 $\frac{10397}{1}$ TYPE *Pleurotomaria quadricarinata* Hall.
Paleontology of New York. 1847. 1:43, pl. 10, fig. 8.

Lowville limestone Watertown, Jefferson co. N. Y.

Pleurotomaria quadrilix Hall

- 3441 $\frac{10398}{1}$ TYPE *Pleurotomaria quadrilix* Hall. Paleon-
tology of New York. 1879. v. 5, pt 2, p. 86, pl. 30,
fig. 12, 18.

Onondaga limestone Bridgewater, Oneida co. N. Y.

C. A. White, coll. 1861

Pleurotomaria rochana Hartt & Rathbun

- 3442 $\frac{10399}{1}$ TYPE: PLASTOTYPE *Pleurotomaria rochana* Hartt & Rathbun. Annals of the New York lyceum of natural history. 1875. 11: 114.

Clarke. Archivos do Museu nacional do Rio de Janeiro. 1899. v. 10, pl. 4, fig. 17.

Eréré sandstone (Middle Devonic) Eréré, Pará, Brazil
O. A. Derby, donor

Pleurotomaria subconica Hall

- 3443 $\frac{10400}{1}$ HYPOTYPE *Pleurotomaria subconica* Hall. Paleontology of New York. 1847. 1: 174, pl. 37, fig. 8d, 8e.
Trenton limestone Watertown, Jefferson co. N. Y.

Pleurotomaria subdepressa Hall

- 3444 $\frac{10401}{1}$ TYPE *Pleurotomaria subdepressa* Hall. Paleontology of New York. 1852. 2: 334, pl. 76, fig. 2a, 2b.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Pleurotomaria umbilicata Hall

- 3445 $\frac{10402}{1}$ TYPE *Pleurotomaria umbilicata* Hall. Paleontology of New York. 1847. 1: 43, pl. 10, fig. 9b.

Lowville limestone Watertown, Jefferson co. N. Y.

- 3446 $\frac{10402}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 9c.

Lowville limestone Watertown N. Y.

- 3447 $\frac{10402}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 9g.

Lowville limestone Watertown N. Y.

- 3448 $\frac{10402}{4}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 9h.

Lowville limestone Watertown N. Y.

- 3449 $\frac{10402}{5}$ TYPE Hall. Paleontology of New York. 1847. 1: 175, pl. 38, fig. 1d, 1e, 1f.

Trenton limestone Middleville, Herkimer co. N. Y.

PORCELLIA Leveille**Porcellia nais** Hall

- 3450 $\frac{10420}{1}$ HYPOTYPE *Porcellia nais* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 40.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 26, fig. 28.

Chemung beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

PROTOCOLYPTRAEA Clarke

Protocalyptraea marshalli Clarke

3451 $\frac{10430}{1}$ TYPE Protocalyptraea marshalli Clarke. American geologist. 1894. 13:334; p. 332, fig. 10, 11; p. 333, fig. 12.

Portage (Naples) beds

Whetstone gully near Honeoye lake, N. Y.

J. M. Clarke donor

Protocalyptraea styliophila Clarke

3452 $\frac{10431}{1}$ TYPE Protocalyptraea styliophila Clarke. American geologist. 1894. 13:334; p. 333, fig. 13.

Genesee (Styliola) limestone Canandaigua lake, N. Y.

J. M. Clarke donor

RAPHISTOMA Hall

Raphistoma lenticulare Emmons (sp.)

3453 $\frac{10440}{1}$ TYPE Pleurotomaria lenticularis Emmons. Geology of New York; report on the 2d district. 1842. p. 392.

Hall. Paleontology of New York. 1847. v. 1, pl. 37, fig. 6a, 6b.

Trenton limestone Watertown, Jefferson co. N. Y.

3454 $\frac{11440}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 37, fig. 6c, 6d.

Trenton limestone

Watertown N. Y.

Raphistoma planistria Hall

3455 $\frac{10441}{1}$ TYPE Raphistoma planistria Hall. Paleontology of New York. 1847. 1:30, pl. 6, fig. 3b.

Chazy limestone

Chazy, Clinton co. N. Y.

Raphistoma stamineum Hall

3456 $\frac{10442}{1}$ TYPE Raphistoma staminea Hall. Paleontology of New York. 1847. 1:29, pl. 6, fig. 5, 5a.

Chazy limestone

Chazy, Clinton co. N. Y.

Raphistoma striatum Emmons (sp.)

- 3457 $\frac{10443}{1}$ TYPE *Maclurea striatus* Emmons. Geology of New York; report on the 2d district. 1842. p. 312, fig. 3. Hall. Paleontology of New York. 1847. v. 1, pl. 6, fig. 2a, 2b.

Chazy limestone

Chazy, Clinton co. N. Y.

SCALITES Emmons**Scalites angulatus** Emmons

- 3458 $\frac{10460}{1}$ HYPOTYPE *Scalites angulatus* Emmons. Geology of New York; report on the 2d district. 1842. p. 312. Hall. Paleontology of New York. 1847. v. 1, pl. 6, fig. 1b.

Chazy limestone

Chazy, Clinton co. N. Y.

SCENELLA Billings**Scenella retusa** Ford

- 3459 $\frac{10480}{1}$ TYPE *Scenella retusa* Ford. American journal of science and arts, ser. 3. 1873. 5:214, fig. 2a, 2b. Walcott. Bulletin of the United States geological survey, no. 30. pl. 12, fig. 3.

Walcott. 10th annual report of the United States geological survey. 1890. pl. 73, fig. 6.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

SCHIZOSTOMA Bronn.**Schizostoma complanatum** Vanuxem (sp.)

- 3460 $\frac{10500}{1}$ HYPOTYPE *Ophileta complanata* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 36. Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 6.

Beekmantown limestone

Canajoharie N. Y.

Schizostoma levatum Vanuxem (sp.)

- 3461 $\frac{10501}{1}$ HYPOTYPE *Ophileta levata* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 36. Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 4.

Beekmantown limestone

Canajoharie N. Y.

- 3462 $\frac{10501}{2}$ **HYPOTYPE** Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 5.
Beekmantown limestone Canajoharie N. Y.

STRAPAROLLUS Montfort

Straparollus clymenioides Hall

- 3463 $\frac{10520}{1}$ **TYPE: PLASTOTYPE** Euomphalus clymenioides Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 26.
Euomphalus (Straparollus) clymenioides Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 6, fig. 3.
Schoharie grit Schoharie N. Y.
- 3464 $\frac{10520}{2}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 15.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 15.
Schoharie grit Schoharie N. Y.
- 3465 $\frac{10520}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 27, fig. 5.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 3466 $\frac{10520}{4}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 1.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 1.
Schoharie grit Schoharie N. Y.
- 3467 $\frac{10520}{5}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 2.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3468 $\frac{10520}{6}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 3.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 3.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

- 3469 $\frac{10520}{7}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 70, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 70, fig. 4.

Schoharie grit

Schoharie N. Y.

- 3470 $\frac{10520}{8}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 70, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 70, fig. 5.

Schoharie grit

Clarksville, Albany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

Straparollus hecale Hall

- 3471 $\frac{10521}{1}$ **TYPE: PLASTOTYPE** *Euomphalus hecale* Hall. Il-
lustrations of Devonian fossils. 1876. Gasteropoda, pl. 16,
fig. 10.

Euomphalus (*Straparollus*) *hecale* Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 59,
pl. 16, fig. 10.

Chemung beds

Meadville Pa.

C. Van Deloo, coll. 1863

- 3472 $\frac{10521}{2}$ **TYPE** Hall. Illustrations of Devonian fossils. 1876. Gas-
teropoda, pl. 16, fig. 12.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 16, fig. 12.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3473 $\frac{10521}{3}$ **TYPE** Hall. Illustrations of Devonian fossils. 1876. Gas-
teropoda, pl. 16, fig. 13.

Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 16, fig. 13.

Chemung (?) beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3474 $\frac{10521}{4}$ **TYPE** Hall. Illustrations of Devonian fossils. 1876.
Gasteropoda, pl. 16, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 16, fig. 14.

Chemung (?) beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Straparollus hecale *var. corpulens* Hall

- 3475 $\frac{10522}{1}$ TYPE *Euomphalus* (*Straparollus*) *hecale*
var. corpulens Hall. *Paleontology of New York*.
 1879. v. 5, pt 2, p. 59, pl. 27, fig. 7.
 Chemung beds Mansfield, Tioga co. N. Y.
 A. Sherwood, coll. 1871

Straparollus inops Hall

- 3476 $\frac{10523}{1}$ TYPE *Euomphalus inops* Hall. *Illustrations of*
Devonian fossils. 1876. *Gasteropoda*, pl. 16, fig. 5.
Euomphalus (*Straparollus*) *inops* Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 58, pl. 16,
 fig. 5.
 Schoharie grit Schoharie N. Y.

Straparollus rudis Hall

- 3477 $\frac{10524}{1}$ TYPE *Euomphalus rudis* Hall. *Illustrations of*
Devonian fossils. 1876. *Gasteropoda*, pl. 16, fig. 7.
Euomphalus (*Straparollus*) *rudis* Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 58, pl. 16,
 fig. 7.
 Hamilton shales West Bloomfield, Ontario co. N. Y.
 C. A. White and C. Van Deloo, coll. 1860

STROPHOSTYLUS Hall**Strophostylus expansus** Conrad (sp.)

- 3478 $\frac{10540}{1}$ TYPE *Platyceras expansus* Conrad. *Annual*
report on the paleontology of New York. 1841. p. 55.
Strophostylus expansus Hall. *Paleontology*
of New York. 1859. v. 3, pl. 114, fig. 2.
 Oriskanian Schoharie county, N. Y.
 3479 $\frac{10540}{2}$ HYPOTYPE Clarke. *New York state museum memoir* 3.
 1900. pl. 3, fig. 24.
 Oriskanian Becraft mountain, Hudson N. Y.

Strophostylus fitchi Hall

- 3480 $\frac{10541}{1}$ TYPE *Strophostylus fitchi* Hall. *Paleontology*
of New York 1859. 3: 306, pl. 67, fig. 2a, 2b.
 Helderbergian Carlisle, Schoharie co. N. Y.
 3481 $\frac{10541}{2}$ TYPE Hall. *Paleontology of New York*. 1859. v. 3,
 pl. 67, fig. 2c.
 Helderbergian Carlisle N. Y.
Subulites abbreviatus *see* *Cyrtospira abbrevi-*
iata
Turbo? obscura *see* *Holopea obscura*

PTEROPODA

CONULARIA Miller

Conularia cayuga Hall

- 3482 $\frac{11000}{1}$ TYPE: PLASTOTYPE *Conularia cayuga* Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 2, 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 211, pl. 34, fig. 2, 5.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Conularia congregata Hall

- 3483 $\frac{11001}{1}$ TYPE *Conularia congregata* Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 214, pl. 34, fig. 1; pl. 34A, fig. 9.

Ithaca beds

Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

- 3484 $\frac{11001}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34A, fig. 11.

Ithaca beds

Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

Conularia continens Hall

- 3485 $\frac{11002}{1}$ TYPE *Conularia continens* Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 4, 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 212, pl. 34, fig. 3, 4.

Marcellus shale Bridgewater, Oneida co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

On slab with type of Pal. N. Y. v. 5, pt 2, pl. 34, fig. 6.

- 3486 $\frac{11002}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34, fig. 6.

Marcellus shale Bridgewater, Oneida co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

On slab with type of Pal. N. Y. v. 5, pt 2, pl. 34, fig. 3, 4.

Conularia continens *var. rudis* Hall

- 3487 $\frac{11003}{1}$ TYPE *Conularia continens* *var. rudis* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 215, pl. 34A, fig. 7, 8.

Hami'ton beds

Schoharie county, N. Y.

Conularia huntiana Hall

- 3488 $\frac{11004}{1}$ TYPE *Conularia huntiana* Hall. Paleontology of New York. 1859. 3: 348, pl. 72A, fig. 2a, 2b.
New Scotland beds Schoharie N. Y.

Conularia infrequens Hall

- 3489 $\frac{11005}{1}$ TYPE *Conularia infrequens* Hall. 11th annual report of the Indiana state geologist. 1882. p. 321, pl. 33, fig. 7.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Conularia lata Hall

- 3490 $\frac{11006}{1}$ TYPE *Conularia lata* Hall. Paleontology of New York. 1859. 3: 479, pl. 111, fig. 1.
Oriskanian Schoharie N. Y.
J. Gebhard purchase

Conularia newberryi Winchell

- 3491 $\frac{11007}{1}$ HYPOTYPE *Conularia newberryi* Winchell. Proceedings of the Academy of natural sciences of Philadelphia. 1865. p. 130.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34A, fig. 12.
Waverly group Richfield O.
C. A. White, coll. 1861

Conularia trentonensis Hall

- 3492 $\frac{11008}{1}$ TYPE *Conularia trentonensis* Hall. Paleontology of New York. 1847. 1: 222, pl. 59, fig. 4a.
Trenton limestone Middleville, Herkimer co. N. Y.
Geological survey collection

Conularia undulata (Conrad) Hall

- 3493 $\frac{11009}{1}$ TYPE *Conularia undulata* Conrad. Annual report on the paleontology of New York. 1841. p. 57.
Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 29, fig. 1, 2, 7.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 33, fig. 1, 2, 7.
Hamilton beds Cazenovia, Madison co. N. Y.
James Hall, coll. 1872

- 3494 $\frac{11012}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34A, fig. 2, 3.

Hamilton beds

Morrisville, Madison co. N. Y.

Simms collection

Hyolithes aclis see *Hyolithus aclis*

Hyolithes centennialis see *Hyolithus centennialis*

Hyolithes emmonsi see *Hyolithus communis* var. *emmonsi*

Hyolithes impar see *Hyolithus impar*

Hyolithes ligea see *Hyolithus ligea*

Hyolithes principalis see *Hyolithus principalis*

Hyolithes striatus see *Hyolithus striatus*

HYOLITHUS Eichwald

Hyolithus aclis Hall

- 3495 $\frac{11020}{1}$ TYPE *Hyolithes aclis* Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 5-7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 197, pl. 32, fig. 22-24.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

- 3496 $\frac{11020}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 25.

Hamilton beds

Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3497 $\frac{11020}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 27.

Hamilton beds

Cayuga lake, N. Y.

H. H. Smith, coll. 1871

- 3498 $\frac{11020}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 11.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 28; pl. 32A, fig. 25.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

- 3499 $\frac{11020}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 29.

Hamilton beds

Norton's landing, N. Y.

H. H. Smith, coll. 1871

3500 $\frac{11020}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Pteropoda, pl. 27, fig. 8.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 32, fig. 31.

Hamilton beds

Norton's landing, N. Y.

H. H. Smith, coll. 1871

3501 $\frac{11020}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 32A, fig. 23.

Hamilton beds

Onondaga county, N. Y.

Hyolithus centennialis Barrett

3502 $\frac{11021}{1}$ HYPOTYPE *Hyolithes centennialis* Barrett. An-
nals of the New York lyceum of natural history. 1877.
11:299.

Hall. Paleontology of New York 1888. v. 5, pt 2,
supplement (= v. 7), pl. 114, fig. 22.

Port Ewen beds (Helderbergian)

Port Jervis,

Orange co. N. Y.

S. T. Barrett, donor

3503 $\frac{11021}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888.
v. 5, pt 2, supplement (= v. 7), pl. 114, fig. 23.

Port Ewen beds (Helderbergian)

Port Jervis N. Y.

S. T. Barrett, donor

Hyolithus ceratophilus Clarke

3504 $\frac{11022}{1}$ TYPE *Hyolithus ceratophilus* Clarke. 13th
annual report of the New York state geologist. 1894.
1: 172, pl. 4, fig. 17, 18.

Onondaga limestone

Geneva N. Y.

D. F. Lincoln, donor

Hyolithus communis Billings *var. emmonsi* Ford

3505 $\frac{11023}{1}$ TYPE *Hyolithes emmonsi* Ford. American jour-
nal of science and arts, ser. 3. 1873. 5:214, fig. 3a, 3b.
Lower Cambrian

Troy N. Y.

S. W. Ford purchase

3506 $\frac{11023}{2}$ TYPE Ford. American journal of science and arts, ser. 3.
1873. 5:214, fig. 3c.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

Hyolithus impar Ford

3507 $\frac{11024}{1}$ TYPE *Hyolithes impar* Ford. American journal of science and arts, ser. 3. 1872. 3:419, fig. 1a, 1b, 2a.

Walcott. United States geological survey bulletin 30. 1886. pl. 14, fig. 1, 1a, 1c.

Walcott. 10th annual report of the United States geological survey. 1890. pl. 77, fig. 1, 1a, 1c.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

3508 $\frac{11024}{2}$ TYPE Ford. American journal of science and arts, ser. 3. 1872. 3:419, fig. 2b.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

3509 $\frac{11024}{3}$?TYPE Ford. American journal of science and arts, ser. 3. 1872. 3:419 (operculum, not figured).

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

Hyolithus ligea Hall

3510 $\frac{11025}{1}$ TYPE *Theca ligea* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 34.

Hyolithes ligea Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 15.

Schoharie grit

Schoharie N. Y.

3511 $\frac{11025}{2}$ TYPE? Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 16.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Hyolithus principalis Hall

3512 $\frac{11026}{1}$ TYPE: PLASTOTYPE *Hyolithes principalis* Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 20.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 196, pl. 32, fig. 20.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3513 $\frac{11026}{2}$ TYPE: HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 21.

Schoharie grit

Schoharie N. Y.

Hyolithus rhine Ruedemann

- 3514 $\frac{11027}{1}$ TYPE *Hyolithus rhine* Ruedemann. New York state museum bulletin 49. 1901. p. 36, pl. 2, fig. 12-15.
Trenton conglomerate Rysedorph hill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

Hyolithus striatus Hall

- 3515 $\frac{11028}{1}$ TYPE *Hyolithes striatus* Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 12.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 199, pl. 32, fig. 34; pl. 32A, fig. 26
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

Styliola fissurella *see* *Styliolina fissurella*

Styliola fissurella var. *intermittens* *see*

Styliolina fissurella var. *intermittens*

Styliola fissurella var. *strigata* *see* *Styliolina fissurella* var. *strigata*

Styliola obtusa *see* *Styliolina obtusa*

Styliola spica *see* *Styliolina spica*

STYLIOLINA Karpinsky**Styliolina fissurella** Hall (sp.)

- 3516 $\frac{11040}{1}$ HYPOTYPE *Tentaculites fissurella* Hall. Geology of New York; report on the 4th district. 1843. p. 180.

Styliola fissurella Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 8.

Genesee slate Alden, Erie co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

- 3517 $\frac{11040}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 9.

Genesee slate Alden N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

On slab with types of *S. fissurella* var. *intermittens*, pl. 31A, fig. 11, 12, 15, 16a, 16b, 16c.

- 3518 $\frac{11040}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 13.

Genesee slate Alden N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

- 3519 $\frac{11040}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 18.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
- 3520 $\frac{11040}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 31A, fig. 19.
Genesee slate Alden N. Y.
- 3521 $\frac{11040}{6}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 22.
Genesee slate Lexington, Scott co. Ind.
C. D. Walcott and C. Van Deloo, coll. 1878
- 3522 $\frac{11040}{7}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 23.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
- 3523 $\frac{11040}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 31A, fig. 24.
Genesee slate Alden N. Y.
On slab with type of *S. fissurella* var. *intermittens*,
pl. 31A, fig. 17.
- 3524 $\frac{11040}{9}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 26.
Marcellus shale Littleville, near West Avon,
Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
On slab with type of pl. 31A, fig. 27.
- 3525 $\frac{11040}{10}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 31A, fig. 27.
Marcellus shale Littleville, near West Avon N. Y.
C. A. White and C. Van Deloo, coll. 1860
On slab with type of pl. 31A, fig. 26.
- 3526 $\frac{11040}{11}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 31A, fig. 28.
Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860
On slab with type of *S. obtusa*, pl. 31A, fig. 36.
- Styliolina fissurella var. intermittens** Hall (sp.)
- 3527 $\frac{11041}{1}$ TYPE *Styliola fissurella* var. *intermittens*
Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 18, pl. 31A, fig. 11.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of *S. fissurella*, pl. 31A, fig. 9.

- 3528 $\frac{11041}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 12.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of *S. fissurella*, pl. 31A, fig. 9.
- 3529 $\frac{11041}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 15.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of *S. fissurella*, pl. 31A, fig. 9.
- 3530 $\frac{11041}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 16a.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of *S. fissurella*, pl. 31A, fig. 9.
- 3531 $\frac{11041}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 16b.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of *S. fissurella*, pl. 31A, fig. 9.
- 3532 $\frac{11041}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 31A, fig. 16c.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of *S. fissurella*, pl. 31A, fig. 9.
- 3533 $\frac{11041}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 17.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of *S. fissurella*, pl. 31A, fig. 24.
- Styliolina fissurella* var. *strigata* Hall (sp.)**
- 3534 $\frac{11042}{1}$ TYPE *Styliola fissurella* var. *strigata* Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 181,
pl. 31A, fig. 31.
Marcellus shale Cherry Valley, Otsego co. N. Y.
J. W. Hall, coll. 1877
- 3535 $\frac{11042}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 31A, fig. 32.
Marcellus shale Cherry Valley N. Y.
J. W. Hall, coll. 1877

Styliolina obtusa Hall (sp.)

- 3536 $\frac{11043}{1}$ TYPE *Styliola obtusa* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 182, pl. 31A, fig. 34.

Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

On slab with type of pl. 31A, fig. 35.

- 3537 $\frac{11043}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 35.

Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860

On slab with type of pl. 31A, fig. 34.

- 3538 $\frac{11043}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 36.

Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860

On slab with type of *S. fissurella*, pl. 31A, fig. 28.

Styliolina spica Hall (sp.)

- 3539 $\frac{11044}{1}$ TYPE *Styliola spica* Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), pl. 114, fig. 28.

Hamilton beds Bellona, Yates co. N. Y.
C. Van Deloo, coll. 1864

On slab with type of *Stictopora permarginata*, v. 6, pl. 63, fig. 16.

Tentaculites fissurella see *Styliolina fissurella*
Theca ligea see *Hyolithus ligea*

CEPHALOPODA**AGONIATITES** Meek**Agoniatites expansus** Vanuxem (sp.)

- 3540 $\frac{12000}{1}$ HYPOTYPE *Goniatites expansus* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146.

Goniatites vanuxemi Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 68, fig. 1.

Goniatites vanuxemi Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 68, fig. 1.

Marcellus shale (Agoniatite limestone)

Near Manlius N. Y.
L. Lincklaen, donor

- 3541 $\frac{12000}{2}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 69, fig. 3, 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 69, fig. 3, 4; supplement (= v. 7) 1888. pl. 127,
fig. 5, 6.
Marcellus shale (Agoniatite limestone) Manlius,
Onondaga co. N. Y.
J. Gebhard purchase
- 3542 $\frac{12000}{3}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 69, fig. 5
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 69, fig. 5.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
Geological survey collection
- 3543 $\frac{12000}{4}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 69, fig. 6.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 69, fig. 6.
Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.
Geological survey collection
- 3544 $\frac{12000}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1888.
v. 5, pt 2, supplement (= v. 7), pl. 127, fig. 4.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
- 3545 $\frac{12000}{6}$ **HYPOTYPE** *Agoniatites expansus* Clarke. 16th
annual report of the New York state geologist. 1898.
p. 168, fig. 6.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
J. M. Clarke, donor

***Agoniatites expansus* Vanuxem var. *nodiferus* Hall**

- 3546 $\frac{12001}{1}$ **TYPE** *Goniatites vanuxemi* var. *nodiferus*
Hall. 5th annual report of the New York state geologist.
1886. pl. (127) 12, fig. 7.
Hall. Paleontology of New York. 1888. v. 5, pt 2,
supplement (= v. 7), p. 39, pl. 127, fig. 7.
Marcellus shale (Agoniatite limestone)
Cherry Valley, Otsego co. N. Y.
J. W. Hall, coll. 1877

Agoniatites? unilobatus Hall

- 3547 $\frac{12002}{1}$ TYPE *Goniatites unilobatus* Hall. Description of new species of Goniatitidae. 1874. p. 1.
 Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 71, fig. 15, 16; pl. 74, fig. 5.
 Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 71, fig. 15, 16; pl. 74, fig. 5.
 Hamilton beds Norton's landing, Cayuga lake, N. Y.
 H. H. Smith, coll. 1871

ANARCESTES Mojsisovics**Anarcestes plebeiformis Hall**

- 3548 $\frac{12020}{1}$ TYPE *Porcellia? rotatoria* Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, explanation of pl. 16.
Goniatites plebeiformis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 448, pl. 110, fig. 3.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley, Otsego co. N. Y.
 J. W. Hall, coll. 1877
- 3549 $\frac{12020}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 4.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
- 3550 $\frac{12020}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 5.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. W. Hall, coll. 1877
- 3551 $\frac{12020}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 6.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. W. Hall, coll. 1877
- 3552 $\frac{12020}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 7.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. W. Hall, coll. 1877

- 3553 $\frac{12020}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 8.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. W. Hall, coll. 1877.
- 3554 $\frac{12020}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 9.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
- 3555 $\frac{12020}{8}$ HYPOTYPE Anarcestes plebeiformis Clarke. 16th annual report of the New York state geologist. 1898. p. 165, fig. 1.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. M. Clarke, donor
- 3556 $\frac{12020}{9}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 165, fig. 2.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. M. Clarke, donor
- 3557 $\frac{12020}{10}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 166, fig. 3.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. M. Clarke, donor
- 3558 $\frac{12020}{11}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 166, fig. 4.
 Marcellus shale (Anarcestes limestone)
 Cox's falls, Cherry Valley N. Y.
 J. M. Clarke, donor

BACTRITES Sandberger

Bactrites aciculum Hall (sp.)

- 3559 $\frac{12040}{1}$ HYPOTYPE Orthoceras aciculum Hall. Geology of New York; report on the 4th district. 1843. p. 243.
 Ceratiocaris longicaudus Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 73, pl. 1, fig. 4.
 Genesee shale Bristol Center, Ontario co. N. Y.
 R. P. Whitfield and C. Van Deloo, coll. 1862

- 3560 $\frac{12040}{2}$ HYPOTYPE Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 1, fig. 5.
Genesee shale Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 3561 $\frac{12040}{3}$ HYPOTYPE Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 1, fig. 6.
Genesee shale Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 3562 $\frac{12040}{4}$ HYPOTYPE Clarke. American geologist. 1894. v. 14, pl. 2, fig. 9.
Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor
- 3563 $\frac{12040}{5}$ HYPOTYPE Bactrites aciculum Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 17.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor
- 3564 $\frac{12040}{6}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 18.
Genesee shale (Styliola limestone)
Livingston county, N. Y.
J. M. Clarke, donor
- 3565 $\frac{12040}{7}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 19.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor
- 3566 $\frac{12040}{8}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 20-22.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

Bactrites clavus Hall

- 3567 $\frac{12041}{1}$ TYPE Bactrites clavus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 316, pl. 84, fig. 15; pl. 113, fig. 1-5.
Marcellus shale Schoharie N. Y.
J. Gebhard purchase

Bactrites gracilior Clarke

- 3568 $\frac{12042}{1}$ TYPE *Bactrites gracilior* Clarke. 16th annual report of the New York state geologist. 1898. p. 124, pl. 9, fig. 1.
Genesee shale (Styliola limestone)
Genesee county, N. Y.
J. M. Clarke, donor
- 3569 $\frac{12042}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 2.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor
- 3570 $\frac{12042}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 3.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor
- 3571 $\frac{12042}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 4.
Portage (Naples) beds Attica N. Y.
J. M. Clarke, donor
- 3572 $\frac{12042}{5}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 5.
Portage (Naples) beds Attica N. Y.
J. M. Clarke, donor
- 3573 $\frac{12042}{6}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 6.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor
- 3574 $\frac{12042}{7}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 7.
Genesee shale (Styliola limestone)
Livingston county, N. Y.
J. M. Clarke, donor
- 3575 $\frac{12042}{8}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 8.
Portage (Naples) beds Griswold, Genesee county, N. Y.
D. D. Luther, coll.
- 3576 $\frac{12042}{9}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 9, 10.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

3577 $\frac{12042}{10}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 11, 12.

Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

3578 $\frac{12042}{11}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 13.

Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

3579 $\frac{12042}{12}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 14.

Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

3580 $\frac{12042}{13}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 15, 16.

Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

BELOCERAS Hyatt

Beloceras iynx Clarke

3581 $\frac{12060}{1}$ TYPE *Beloceras iynx* Clarke. 16th annual report of the New York state geologist. 1898. p. 103, pl. 7, fig. 11.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3582 $\frac{12060}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 12.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3583 $\frac{12060}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 103, fig. 78; pl. 7, fig. 13.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3584 $\frac{12060}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 14.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3585 $\frac{12060}{5}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 15.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

- 3586 $\frac{12060}{6}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 16.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke, donor

CAMEROCERAS Conrad

Cameroceras duplicatum Hall (sp.)

(= *Cameroceras proteiforme* Hall)

- 3587 $\frac{12080}{1}$ TYPE *Endoceras duplicatum* Hall. Paleontology of New York. 1847. 1:219, pl. 55, fig. 1.

Trenton limestone

Middleville, Herkimer co. N. Y.

J. Gebhard purchase

Cameroceras lativentrum Hall (sp.)

- 3588 $\frac{12081}{1}$ TYPE *Endoceras lativentrum* Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 173, pl. 5, fig. 1a, 1b.

Trenton limestone

Lowville, Lewis co. N. Y.

Geological survey collection

Cameroceras proteiforme Hall (sp.)

- 3589 $\frac{12082}{1}$ TYPE *Endoceras proteiforme* Hall. Paleontology of New York. 1847. 1:213, pl. 49, fig. 1d.

Trenton limestone

Middleville, Herkimer co. N. Y.

Cameroceras proteiforme? *var. elongatum* Hall (sp.)

- 3590 $\frac{12083}{1}$ TYPE *Endoceras proteiforme?* *var. elongatum* Hall. Paleontology of New York. 1847. 1:216, pl. 52, fig. 1.

Trenton limestone

Middleville N. Y.

Clymenia neapolitana *see* *Cyrtoclymenia neapolitana*

CYRTOCERAS Goldfuss

Cyrtoceras absens *see* *Gomphoceras absens*

Cyrtoceras aemulum *see* *Cyrtoceras* (Zitteloceras) *aemulum*

Cyrtoceras (Zitteloceras) aemulum Hall

- 3591 $\frac{12100}{1}$ TYPE *Cyrtoceras aemulum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 371, pl. 97, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3592 $\frac{12100}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 97, fig. 2.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3593 $\frac{12100}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 97, fig. 3.
Schoharie grit Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 3594 $\frac{12100}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 97, fig. 4, 5.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3595 $\frac{12100}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 97, fig. 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3596 $\frac{12100}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 97, fig. 8, 9.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Cyrtoceras alternatum Hall

- 3597 $\frac{12101}{1}$ TYPE *Cyrtoceras undulatum* Hall. Illustrations
of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 9, 10.
Cyrtoceras alternatum Hall. Paleontology of
New York. 1879. v. 5, pt 2, p. 365, pl. 46, fig. 12, 13.
Marcellus shale (Agoniatites limestone)
Schoharie N. Y.
J. Gebhard purchase
- Cyrtoceras citum* see *Cyrtoceras* (*Zitteloceras*)
citum

Cyrtoceras (Zitteloceras) citum Hall

- 3598 $\frac{12102}{1}$ TYPE *Cyrtoceras citum* Hall. Paleontology of
New York. 1879. v. 5, pt 2, p. 372, pl. 51, fig. 1, 2.
Onondaga limestone Schoharie N. Y.
J. Gebhard purchase
- 3599 $\frac{12102}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 51, fig. 3.
Onondaga limestone Schoharie N. Y.
J. Gebhard purchase

- 3600 $\frac{12102}{3}$ TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 1.
Onondaga limestone Leroy, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
- 3601 $\frac{12102}{4}$ TYPE Hall. Paleontology of New York. 1888 v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 2.
Onondaga limestone Falkirk, Erie co N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
- 3602 $\frac{12102}{5}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 3.
Onondaga limestone Cayuga Ont.
C. D. Walcott, coll. 1878
- Cyrtoceras clavatum* see Gomphoceras (Poterioceras) clavatum
Cyrtoceras eugenium see Cyrtoceras (Zitteloceras) eugenium
- Cyrtoceras (Zitteloceras) eugenium Hall**
- 3603 $\frac{12103}{1}$ TYPE *Cyrtoceras eugenium* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 42.
Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 9, fig. 1.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 46, fig. 5, 6.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 47, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3604 $\frac{12103}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils 1876. Cephalopoda, pl. 46, fig. 7.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 47, fig. 7.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3605 $\frac{12103}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 79, fig. 16.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

- 3606 $\frac{12103}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 96, fig. 1.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3607 $\frac{12103}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 96, fig. 2.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3608 $\frac{12103}{6}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New
York. 1879. v. 5, pt 2, pl. 96, fig. 3.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3609 $\frac{12103}{7}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New
York. 1879. v. 5, pt 2, pl. 96, fig. 4.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3610 $\frac{12103}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 96, fig. 5.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3611 $\frac{12103}{9}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 96, fig. 6, 7.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3612 $\frac{12103}{10}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 96, fig. 8, 9.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3613 $\frac{12103}{11}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 96, fig. 10.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase
- 3614 $\frac{12103}{12}$ HYPOPLASTOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 96, fig. 11.
Schoharie grit Schoharie county, N. Y.
- 3615 $\frac{12103}{13}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 97, fig. 10, 11.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

Cyrtoceras filsum (Emmons) Hall

- 3616 $\frac{12104}{1}$ PLASTOTYPE *Cyrtoceras filsum* Emmons.
Geology of New York; report on the 2d district. 1842.
p. 392, fig. 4.

Cyrtolites filsum Hall. Paleontology of New
York. 1847. v. 1, pl. 41, fig. 3a.

Trenton limestone Watertown, Jefferson co. N. Y.
Geological survey collection

Cyrtoceras (Gomphoceras?) formosum Hall

- 3617 $\frac{12105}{1}$ TYPE *Cyrtoceras (Gomphoceras?) formosum*
Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 362, pl. 95, fig. 8, 9.

Hamilton beds Dresden, Yates co. N. Y.

Cyrtoceras jason see *Cyrtoceras (Rhyticeras)*
jason

Cyrtoceras (Rhyticeras) jason Hall

- 3618 $\frac{12106}{1}$ TYPE *Cyrtoceras jason* Hall. Descriptions of new
species of fossils from the Upper Helderberg, Hamilton
and Chemung groups. 1861. p. 43.

Gyroceras (Cyrtoceras?) spinosum
Conrad. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 52, fig. 1.

Cyrtoceras jason Hall. Paleontology of New
York. 1879. v. 5, pt 2, pl. 50, fig. 1.

Schoharie grit Schoharie N. Y.
J. Gebhard purchase

- 3619 $\frac{12106}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 52, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 50, fig. 2.

Schoharie grit Schoharie N. Y.
J. Gebhard purchase

- 3620 $\frac{12106}{3}$ TYPE Hall. Paleontology of New York. 1888. v. 5,
pt 2, supplement (=v. 7), pl. 124, fig. 7.

Schoharie grit Clarksville N. Y.

Cyrtoceras macrostoma Hall

- 3621 $\frac{12107}{1}$ PLASTOTYPE *Cyrtoceras marginalis* Conrad.
Proceedings of the Academy of natural sciences of Phila-
delphia. 1843. 1:334.

Cyrtoceras macrostomum Hall. Paleontology of New York. 1847. 1:194, pl. 42, fig. 1b.

Trenton limestone Mineral Point Wis.

Cyrtoceras marginalis *see* *Cyrtoceras macrostoma*

Cyrtoceras matheri *see* *Gyroceras* (*Halloceras*) *matheri*

Cyrtoceras maximum *see* *Nautilus* (*Nephriticer*) *maximum*

***Cyrtoceras metula* Hall**

3622 $\frac{12108}{1}$ TYPE *Cyrtoceras metula* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 44.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 11.

Onondaga limestone

Littleville, near Avon, Livingston co. N. Y.

C. Van Deloo, coll. 1878

***Cyrtoceras morsum* Hall**

3623 $\frac{12109}{1}$ TYPE *Cyrtoceras morsum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 43.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 9, fig. 6.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 46, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 47, fig. 3, 4.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

Cyrtoceras transversum *see* *Gyroceras transversum*

Cyrtoceras trivolve *see* *Gyroceras* (*Zitteler*) *trivolve*

Cyrtoceras undulatum *see* *Cyrtoceras alternatum*

Cyrtoceras undulatum *see* *Gyroceras* (*Halloceras*) *undulatum*

CYRTOCLYMENIA (Gümbel) Hyatt

Cyrtoclymenia neapolitana Clarke

- 3624 $\frac{12120}{1}$ TYPE *Clymenia neapolitana* Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 1, 2.
Cyrtoclymenia neapolitana Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 23.
 Portage (Naples) beds
 Shurtleff's gully, Livingston co. N. Y.
 J. M. Clarke, donor
- 3625 $\frac{12120}{2}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 3.
 Portage (Naples) beds
 Shurtleff's gully, Livingston co. N. Y.
 J. M. Clarke, donor
- 3626 $\frac{12120}{3}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 4.
 Clarke. 16th annual report of the New York state geologist. 1898. p. 132, fig. 105.
 Portage (Naples) beds
 Honeoye lake, N. Y.
 J. M. Clarke, donor
- 3627 $\frac{12120}{4}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 7-9.
 Portage (Naples) beds
 Honeoye lake, N. Y.
 J. M. Clarke, donor
- 3628 $\frac{12120}{5}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 10.
 Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 21.
 Portage (Naples) beds
 Shurtleff's gully, N. Y.
 J. M. Clarke, donor
- 3629 $\frac{12120}{6}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 11.
 Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 25.
 Portage (Naples) beds
 Shurtleff's gully, N. Y.
 J. M. Clarke, donor
- 3630 $\frac{12120}{7}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 12.
 Portage (Naples) beds
 Honeoye lake, N. Y.
 J. M. Clarke, donor

- 3631 $\frac{12120}{8}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 19.

Portage (Naples) beds Shurtleff's gully, N. Y.
J. M. Clarke, donor

- 3632 $\frac{12120}{9}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 20.

Portage (Naples) beds Shurtleff's gully, N. Y.
J. M. Clarke, donor

- 3633 $\frac{12120}{10}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 22.

Portage (Naples) beds Shurtleff's gully, N. Y.
J. M. Clarke, donor

- 3634 $\frac{12120}{11}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 24.

Portage (Naples) beds Shurtleff's gully, N. Y.
J. M. Clarke, donor

Cyrtolites filusum see *Cyrtoceras filusum*

Endoceras duplicatum see *Cameroceras duplicatum*

Endoceras lativentrum see *Cameroceras lativentrum*

Endoceras longissimum see *Vaginoceras longissimum*

Endoceras proteiforme see *Cameroceras proteiforme*

Endoceras proteiforme? var. *elongatum*
see *Cameroceras proteiforme?* var. *elongatum*

Endoceras proteiforme var. *lineolatum*
see *Orthoceras lineolatum*

EUDOCERAS Hall

Eudoceras pandum Hall

- 3635 $\frac{12140}{1}$ TYPE *Trochoceras?* (*Gonioceras?*) *pandum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 403, pl. 3, fig. 4.

Schoharie grit Schoharie N. Y.
J. Gebhard purchase

- 3636 $\frac{12140}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 117, fig. 3.

Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

- 3637 $\frac{12140}{3}$ **HYPOTYPE** Hall. Paleontology of New York. 1888.
v. 5, pt 2, supplement (=v. 7), pl. 117, fig. 5.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

GEPHYROCERAS Hyatt**Gephyroceras cataphractum Clarke**

- 3638 $\frac{12160}{1}$ **TYPE** Gephyroceras cataphractum Clarke.
16th annual report of the New York state geologist.
1898. p. 87, pl. 6, fig. 3.
Portage (Naples) beds Java Village, Wyoming co. N. Y.
J. M. Clarke, donor
- 3639 $\frac{12160}{2}$ **TYPE** Clarke. 16th annual report of the New York state
geologist. 1898. pl. 6, fig. 4.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor
- 3640 $\frac{12160}{3}$ **TYPE** Clarke. 16th annual report of the New York state
geologist. 1898. pl. 6, fig. 5.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor
- 3641 $\frac{12160}{4}$ **TYPE** Clarke. 16th annual report of the New York state
geologist. 1898. pl. 6, fig. 6.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor
- 3642 $\frac{12160}{5}$ **TYPE** Clarke. 16th annual report of the New York state
geologist. 1898. pl. 6, fig. 7.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor
- 3643 $\frac{12160}{6}$ **TYPE** Clarke. 16th annual report of the New York state
geologist. 1898. pl. 6, fig. 8.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor
- 3644 $\frac{12160}{7}$ **TYPE** Clarke. 16th annual report of the New York state
geologist. 1898. pl. 6, fig. 9.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor

Gephyroceras? (Probeloceras?) genundewa Clarke

- 3645 $\frac{12161}{1}$ **TYPE** Gephyroceras? (Probeloceras?) genundewa Clarke. 16th annual report of the New York
state geologist. 1898. p. 86, pl. 8, fig. 1.
Genesee shale (Styliola limestone)
Genundewa, Canandaigua lake, N. Y.
J. M. Clarke, donor

- 3646 $\frac{12161}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 2.

Genesee shale (Styliola limestone) Genundewa N. Y.

J. M. Clarke, donor

- 3647 $\frac{12161}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 3.

Genesee shale (Styliola limestone)

Bristol, Ontario co. N. Y.

J. M. Clarke, donor

Gephyroceras holzapfeli Clarke

- 3648 $\frac{12162}{1}$ TYPE Gephyroceras holzapfeli Clarke. 16th annual report of the New York state geologist. 1898. p. 87, pl. 7, fig. 17.

Portage (Naples) beds

Eighteen Mile creek, Erie co. N. Y.

J. M. Clarke, donor

Gephyroceras perlatus Hall

- 3649 $\frac{12163}{1}$ TYPE Goniatites complanatus var. perlatus Hall. Descriptions of new species of Goniatitidae. 1874. p. 1.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 12.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 12.

Portage (Ithaca) beds

Homer, Cortland co. N. Y.

Geological survey collection

GOMPHOCERAS Sowerby

Gomphoceras sp.

- 3650 $\frac{12180}{1}$ HYPOTYPE Gomphoceras sp. Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 7.

Hamilton beds

Skaneateles lake, N. Y.

J. W. Hall and G. B. Simpson, coll. 1872

Gomphoceras absens Hall

- 3651 $\frac{12181}{1}$ TYPE Cyrtoceras absens Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 7, 8.

Gomphoceras absens Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 324, pl. 46, fig. 8, 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3652 $\frac{12181}{2}$ TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 122, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3653 $\frac{12181}{3}$ TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 122, fig. 2.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3654 $\frac{12181}{4}$ TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 122, fig. 3.

Onondaga limestone Clarence Hollow, Erie co. N. Y.

Gomphoceras ajax Hall

- 3655 $\frac{12182}{1}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 350, pl. 94, fig. 8.

Portage beds

Penn Yan, Yates co. N. Y.

Geological survey collection

Gomphoceras beta Hall

- 3656 $\frac{12183}{1}$ TYPE Gomphoceras beta Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 44.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 7, fig. 1.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 46, fig. 4.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3657 $\frac{12183}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 46, fig. 5.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Gomphoceras clavatum see Gomphoceras (Poterioceras) clavatum

Gomphoceras (Poterioceras) clavatum Hall

- 3658 $\frac{12184}{1}$ TYPE Cyrtoceras clavatum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, explanation of pl. 47.

Gomphoceras clavatum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 323, pl. 93, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

***Gomphoceras? cruciferum* Hall**

3659 $\frac{12185}{1}$ TYPE *Gomphoceras cruciferum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 328, pl. 93, fig. 4.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

***Gomphoceras eximium* Hall**

3660 $\frac{12186}{1}$ PLASTOTYPE *Gomphoceras eximium* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 329; supplement (= v. 7). 1888. pl. 121, fig. 2.

Onondaga limestone

Columbus O.

Gomphoceras fax see *Gomphoceras* (*Poterioceras*) *fax*

***Gomphoceras* (*Poterioceras*) *fax* Hall**

3661 $\frac{12187}{1}$ TYPE *Gomphoceras fax* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 321; supplement (= v. 7). 1888. pl. 122, fig. 5.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

***Gomphoceras illaenus* Hall**

3662 $\frac{12188}{1}$ TYPE *Gomphoceras illaenus* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 322; supplement (= v. 7). 1888. pl. 122, fig. 6.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Gomphoceras impar see *Gomphoceras* (*Poterioceras*) *impar*

***Gomphoceras* (*Poterioceras*) *impar* Hall**

3663 $\frac{12189}{1}$ PLASTOTYPE *Gomphoceras impar* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 332; supplement (= v. 7). 1888. pl. 121A, fig. 1.

Onondaga limestone

Columbus O.

***Gomphoceras manes* Hall**

3664 $\frac{12190}{1}$ TYPE *Gomphoceras manes* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 339; supplement (= v. 7). 1888. pl. 123, fig. 2.

Genesee shale

Alden, Erie co. N. Y.

Gomphoceras mitra Hall

- 3665 $\frac{12191}{1}$ PLASTOTYPE *Gomphoceras mitra* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 330; supplement (= v. 7). 1888. pl. 121, fig. 3.
Onondaga limestone Columbus O.

Gomphoceras mitriforme Clarke

- 3666 $\frac{12192}{1}$ TYPE *Gomphoceras mitriformis* Clarke. 13th annual report of the New York state geologist. 1894. 1:171, pl. 3, fig. 1.
Marcellus shale Chapinville, Ontario co. N. Y.
J. M. Clarke, coll.

Gomphoceras nasutum see *Gomphoceras* (*Poterioceras*) *nasutum*

Gomphoceras (*Poterioceras*) **nasutum** Hall

- 3667 $\frac{12193}{1}$ TYPE *Gomphoceras nasutum* Hall. 5th annual report of the New York state geologist. 1886. pl. (120) 4, fig. 5-7.
Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 34, pl. 120, fig. 5-7.
Chemung beds Belmont, Allegany co. N. Y.
A. Sherwood, coll. 1871

Gomphoceras oviforme see *Gomphoceras* (*Poterioceras*) *oviforme*

Gomphoceras (*Apioceras*) *oviforme* see *Gomphoceras* (*Poterioceras*) *oviforme*

Gomphoceras (*Poterioceras*) **oviforme** Hall

- 3668 $\frac{12194}{1}$ TYPE *Gomphoceras* (*Apioceras*) *oviforme* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 105.
Gomphoceras oviforme Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 45, fig. 2, 3.
Gomphoceras oviforme Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 45, fig. 2, 3.
Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase
- 3669 $\frac{12194}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 46, fig. 6, 7.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

3670 $\frac{12194}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 6.

Marcellus shale (Agoniatite limestone)

Manlius, Onondaga co. N. Y.

James Hall, coll.

3671 $\frac{12194}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 7.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

Gomphoceras pingue Hall

3672 $\frac{12195}{1}$ TYPE Gomphoceras pingue Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 346, pl. 95, fig. 6.

Hamilton beds North of Cazenovia, Madison co. N. Y.

S. G. Williams collection

Gomphoceras? planum Hall

3673 $\frac{12196}{1}$ TYPE Gomphoceras? planum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 352, pl. 57, fig. 1, 2.

Hamilton beds Borodino, Onondaga co. N. Y.

W. Emmons, donor

Gomphoceras poculum Hall

3674 $\frac{12197}{1}$ TYPE Gomphoceras poculum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 340, pl. 93, fig. 7, 8.

Hamilton beds

Cazenovia N. Y.

L. Lincklaen, donor

Gomphoceras potens Hall

3675 $\frac{12198}{1}$ TYPE Gomphoceras potens Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 351; supplement (= v. 7). 1888. pl. 122, fig. 8.

Waverly beds

Medina, Medina co. O.

C. A. White, coll. 1861

Gomphoceras raphanus see Gomphoceras
(Poterioceras) raphanus

Gomphoceras (Poterioceras) raphanus Hall

3676 $\frac{12199}{1}$ TYPE Gomphoceras raphanus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 347, pl. 94, fig. 2, 3.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 3677 $\frac{12199}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 4.

Hamilton beds

Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 3678 $\frac{12199}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 10.

Hamilton beds

Pratt's falls N. Y.

G. B. Simpson, coll. 1871

Gomphoceras rude Hall

- 3679 $\frac{12200}{1}$ TYPE Gomphoceras rude Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 327, pl. 93, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Gomphoceras solidum Hall

- 3680 $\frac{12201}{1}$ TYPE Gomphoceras solidum Hall. Paleontology of New York. v. 5, pt 2, p. 338, pl. 93, fig. 9.

Marcellus shale (Agoniatite limestone)

Manlius, Onondaga co. N. Y.

Gomphoceras tumidum Hall

- 3681 $\frac{12202}{1}$ TYPE Gomphoceras tumidum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 351, pl. 93, fig. 6.

Portage (Ithaca) beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3682 $\frac{12202}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 2.

Portage (Ithaca) beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3683 $\frac{12202}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 3.

Ithaca beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3684 $\frac{12202}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 5.

Chemung beds

New Albion, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

- 3685 $\frac{12202}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 7.

Portage (Ithaca) beds

Cascadilla quarry, Ithaca N. Y.

S. G. Williams collection

Goniatites amplexus *see* *Maeneceras amplexum*

Goniatites bicostatus *see* *Tornoceras bicostatum*

Goniatites chemungensis *see* *Sandbergeroceras chemungense*

Goniatites chemungensis var. *see* (?) *Sandbergeroceras syngonum*

Goniatites chemungensis var. *aequicostatus* *see* *Sandbergeroceras chemungense* var. *aequicostatum*

Goniatites complanatus var. *perlatus* *see* *Gephyroceras perlatum*

Goniatites discoideus *see* *Parodiceras discoideum*

Goniatites expansus *see* *Agoniatites expansus*

Goniatites lutheri *see* *Probeloceras lutheri*

Goniatites marcellensis *see* *Nautilus (Discites) marcellensis*

Goniatites nodifer *see* *Manticoceras nodifer*

Goniatites (Clymenia?) nundaia *see* *Manticoceras pattersoni*

Goniatites patersoni *see* *Manticoceras pattersoni*

Goniatites peracutus *see* *Tornoceras peracutum*

Goniatites plebeiformis *see* *Anarcestes plebeiformis*

Goniatites simulator *see* *Manticoceras simulator*

Goniatites sinuosus *see* *Manticoceras pattersoni*

Goniatites uniangularis *see* *Tornoceras uniangulare*

Goniatites unilobatus *see* *Agoniatites unilobatus*

Goniatites vanuxemi *see* *Agoniatites expansus*

Goniatites vanuxemi var. *nodiferus* *see* *Agoniatites expansus* var. *nodiferus*

GYROCERAS DeKoninck

Gyroceras cyclops *see* *Gyroceras* (*Rhyticeras*) *cyclops*

***Gyroceras* (*Rhyticeras*) *cyclops* Hall**

3686 $\frac{12220}{1}$ TYPE *Gyroceras cyclops* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 39.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 102.

Onondaga limestone

Clarksville N. Y.

***Gyroceras laciniosum* Hall**

3687 $\frac{12221}{1}$ TYPE *Gyroceras laciniosum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 376, pl. 52A, fig. 8.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

Gyroceras liratum *see* *Nautilus* (*Nephriticeras*) *juvenis*

Gyroceras liratum *see* *Nautilus* (*Nephriticeras*) *liratus*

Gyroceras matheri *see* *Gyroceras* (*Halloceras*) *matheri*

***Gyroceras* (*Halloceras*) *matheri* (Conrad) Hall**

3688 $\frac{12222}{1}$ TYPE *Cyrtoceras matheri* Conrad. Geological survey of New York; paleontological department; 3d annual report. 1840. p. 206.

Gyroceras matheri Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 56, fig. 3.

Gyroceras matheri Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 55, fig. 3, 4.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

3689 $\frac{12222}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 55, fig. 5.

Onondaga limestone

Clarksville N. Y.

Gyroceras nereus *see* *Gyroceras* (*Zitteloceras*) *nereus*

***Gyroceras* (*Zitteloceras*) *nereus* Hall**

3690 $\frac{12223}{1}$ HYPOTYPE *Gyroceras nereus* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 39.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 4.

Onondaga limestone Cherry Valley, Otsego co. N. Y.

Gyroceras (Halloceras) paucinodus Hall

3691 $\frac{12224}{1}$ TYPE *Gyroceras* (*Hercoceras*) *paucinodus* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 55, fig. 1-4.

Gyroceras paucinodum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 380, pl. 54, fig. 1-4.

Onondaga limestone Cherry Valley N. Y.

C. A. White, coll. 1860

Gyroceras paucinodum *see* *Gyroceras* (*Halloceras*) *paucinodus*

Gyroceras (*Hercoceras*) *paucinodus* *see* *Gyroceras* (*Halloceras*) *paucinodus*

Gyroceras spinosum *see* *Gyroceras* (*Cophinoceras*) *spinosum*

Gyroceras (Cophinoceras) spinosum Conrad (sp.)

3692 $\frac{12225}{1}$ TYPE *Phragmoceras spinosum* Conrad. Geological survey of New York; paleontological department; 3d annual report. 1840. p. 206.

Gyroceras (*Cyrtoceras*?) *spinosum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 46, fig. 8.

Gyroceras spinosum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 47, fig. 8.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3693 $\frac{12225}{2}$ TYPE Hall. Illustrations of Devonian Fossils. 1876. Cephalopoda, pl. 50, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 48, fig. 1.

Schoharie grit

Schoharie N. Y.

3694 $\frac{12225}{3}$ TYPE *Gyroceras* sp.? Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 50, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 48, fig. 2.

Schoharie grit

Schoharie N. Y.

3695 $\frac{12225}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 50, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 48, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3696 $\frac{12225}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 50, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 48, fig. 4.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3697 $\frac{12225}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 50, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 48, fig. 5; pl. 98, fig. 7.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3698 $\frac{12225}{7}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 51, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 49, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3699 $\frac{12225}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 98, fig. 1, 2.

Schoharie grit

Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

3700 $\frac{12225}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 98, fig. 5.

Schoharie grit

Schoharie N. Y.

3701 $\frac{12225}{10}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 99, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3702 $\frac{12225}{11}$ TYPE: PLASTOTYPE Hall. Paleontology of New York.
1879. v. 5, pt 2, pl. 99, fig. 2.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3703 $\frac{12225}{12}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 99, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3704 $\frac{12225}{13}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 4, 7.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3705 $\frac{12225}{14}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3706 $\frac{12225}{15}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 8.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
Gyroceras (Cyrtoceras?) spinosum see
Cyrtoceras (Rhyticeras) jason
Gyroceras (Cyrtoceras?) spinosum see
Gyroceras (Cophinoceras) spinosum
Gyroceras subliratum see Nautilus (Nephriti-
ceras) subliratus
- Gyroceras transversum Hall**
- 3707 $\frac{12226}{1}$ TYPE Cyrtoceras transversum Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 104.
Gyroceras transversum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 57, fig. 1, 2.
Gyroceras transversum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 56, fig. 1, 2.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
L. Lincklaen collection
- 3708 $\frac{12226}{1, 2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 57, fig. 3, 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 56, fig. 3, 4.
Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.
Gyroceras trivolvus see Gyroceras (Zitteloceras) trivolve

Gyroceras (Zitteloceras) trivolve (Conrad) Hall

- 3709 $\frac{12227}{1}$ TYPE Cyrtoceras trivolvus Conrad. Geological survey of New York; paleontological department; 3d annual report. 1840. p. 206.

Gyroceras trivolvis Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 54, fig. 4, 5; pl. 56, fig. 4.

Gyroceras trivolve Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52, fig. 1-3.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3710 $\frac{12227}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52, fig. 4.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3711 $\frac{12227}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52, fig. 5.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3712 $\frac{12227}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 54, fig. 1-3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 1-3.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3713 $\frac{12227}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 4.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3714 $\frac{12227}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 5.

Onondaga limestone Schoharie N. Y.

3715 $\frac{12227}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 6.

Onondaga limestone Cherry Valley N. Y.

3716 $\frac{12227}{8}$ PLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 7.

Onondaga limestone

Gyroceras undulatum see *Gyroceras* (Halloceras) *undulatum*

***Gyroceras* (Halloceras) *undulatum* Vanuxem (sp.)**

3717 $\frac{12228}{1}$ HYPOTYPE *Cyrtoceras undulatum* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 139.

Gyroceras undulatum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 56, fig. 1.

Gyroceras undulatum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 1.

Onondaga limestone

Cherry Valley N. Y.

C. A. White, coll. 1860

3718 $\frac{12228}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 56, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 2.

Onondaga limestone

Cherry Valley N. Y.

3719 $\frac{12228}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 3, 6.

Onondaga limestone

Cherry Valley N. Y.

C. A. White, coll. 1860

3720 $\frac{12228}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 5.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

3721 $\frac{12228}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 54, fig. 5.

Onondaga limestone

Cherry Valley N. Y.

C. A. White, coll. 1860

***Gyroceras validum* Hall**

3722 $\frac{12229}{1}$ TYPE *Gyroceras validum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 51, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 385, pl. 49, fig. 2.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

3723 $\frac{12229}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 100, fig. 1.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

HORMOCERAS Hall

***Hormoceras? gracile* Hall**

3724 $\frac{12240}{1}$ TYPE *Ormoceras? gracile* Hall. Paleontology of New York. 1847. 1:58, pl. 17, fig. 3.

Black River limestone

Watertown N. Y.

Albany Institute, donor

Hormoceras remotiseptum Hall

- 3725 $\frac{12241}{1}$ TYPE *Ormoceras remotiseptum* Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 173, pl. 4, fig. 3.
Trenton limestone Watertown N. Y.
Geological survey collection

Hormoceras tenuifilum Hall

- 3726 $\frac{12242}{1}$ TYPE *Ormoceras tenuifilum* Hall. Paleontology of New York. 1847. 1: 55, pl. 15, fig. 1, 1a, 1b; pl. 16, fig. 1a.
Black River limestone Watertown N. Y.
Albany Institute, donor
- 3727 $\frac{12242}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 15, fig. 1c.
Black River limestone Watertown N. Y.

Inachus undatus see *Trocholites undatus*

LITUITES Montfort

Lituites convolvans? Hisinger

- 3728 $\frac{12260}{1}$ HYPOTYPE *Lituites convolvans* Hisinger. *Petrefacta Suecica*. 1837. p. 27.
Lituites convolvans? Hall. Paleontology of New York. 1847. v. 1, pl. 13, fig. 2a.
Black River limestone Watertown N. Y.
Albany Institute, donor
- Lituites undatus* see *Trocholites undatus*

MAENECERAS Hyatt

Maeneceras amplexum Hall (sp.)

- 3729 $\frac{12280}{1}$ TYPE *Goniatites amplexus* Hall. 5th annual report of the New York state geologist. 1886. pl. 127 (12), fig. 1.
Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), p. 39, pl. 127, fig. 1.
Tully limestone Lodi, Seneca lake, N. Y.

MANTICOCERAS Hyatt

Manticoceras accelerans Clarke

- 3730 $\frac{12300}{1}$ TYPE *Manticoceras accelerans* Clarke. 16th annual report of the New York state geologist. 1898. p. 77, fig. 60; pl. 6, fig. 10.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Manticoceras apprimatum Clarke

- 3731 $\frac{12301}{1}$ TYPE *Manticoceras apprimatum* Clarke. 16th annual report of the New York state geologist. 1898. p. 62, pl. 6, fig. 27.

Portage (Naples) beds, Griswold, Genesee co. N. Y.
J. M. Clarke, donor

- 3732 $\frac{12301}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 28.

Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor

- 3733 $\frac{12301}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 29.

Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor

Manticoceras contractum Clarke

- 3734 $\frac{12302}{1}$ TYPE *Manticoceras contractum* Clarke. 16th annual report of the New York state geologist. 1898. p. 69, pl. 6, fig. 1.

Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor

- 3735 $\frac{12302}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 2.

Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

Manticoceras fasciculatum Clarke

- 3736 $\frac{12303}{1}$ TYPE *Manticoceras fasciculatum* Clarke. 16th annual report of the New York state geologist. 1898. p. 71, pl. 6, fig. 13, 14.

Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

- 3737 $\frac{12303}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 18.

Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

- 3738 $\frac{12303}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 21.

Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

- 3739 $\frac{12303}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 22.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor
- 3740 $\frac{12303}{5}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 72, fig. 45-48.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor
- 3741 $\frac{12303}{6}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 72, fig. 50.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor
- 3742 $\frac{12303}{7}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 73, fig. 51.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor
- 3743 $\frac{12303}{8}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 73, fig. 52.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor
- 3744 $\frac{12303}{9}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 73, fig. 53.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

Manticoceras nodifer Clarke

- 3745 $\frac{12304}{1}$ PLASTOTYPE *Goniatites nodifer* Clarke. United States geological survey bulletin 16. 1885. p. 21.
Manticoceras nodifer Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 24, 26.
Genesee shale (Styliola limestone)
Genundewa, Canandaigua lake, N. Y.
J. M. Clarke, donor

Manticoceras oxy Clarke

3746 $\frac{12305}{1}$ TYPE *Manticoceras oxy* Clarke. 16th annual report of the New York state geologist. 1898. p. 77, pl. 2, fig. 5, 6.

Portage (Naples) beds Lower falls, Portage N. Y.
J. M. Clarke, donor

3747 $\frac{12305}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 3, fig. 1.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3748 $\frac{12305}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 3, fig. 2, 3.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Manticoceras pattersoni Hall (sp.)

3749 $\frac{12306}{1}$ HYPOTYPE (type of *G. sinuosus*) *Goniatites sinuosus* Hall. Geology of New York; report on the 4th district. 1843. p. 243.

Goniatites (*Clymenia*?) *nundaia* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 13.

Goniatites sinuosus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 13.

Portage (Ithaca) beds Ithaca N. Y.
Geological survey collection

3750 $\frac{12306}{2}$ HYPOTYPE (type of *G. sinuosus*) *Goniatites* (*Clymenia*?) *nundaia* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 14.

Goniatites sinuosus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 14.

Portage (Ithaca) beds Truxton, Cortland co. N. Y.

3751 $\frac{12306}{3}$ HYPOTYPE (Type of *G. sinuosus*) *Goniatites* (*Clymenia*?) *nundaia* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 15; pl. 74, fig. 11.

Goniatites sinuosus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 15; pl. 74, fig. 11.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3752 $\frac{12306}{4}$ HYPOTYPE *Goniatites patersoni* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 99.
Goniatites patersoni Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 72, fig. 5.
Goniatites patersoni Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 72, fig. 5.
 Portage (Naples) beds Portage falls, Portageville N. Y.
 Geological survey collection
- 3753 $\frac{12306}{5}$ HYPOTYPE *Goniatites sinuosus* Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement. (=v. 7), pl. 128, fig. 1.
 Portage (Ithaca) beds University quarry, Ithaca N. Y.
 S. G. Williams collection
- 3754 $\frac{12306}{6}$ HYPOTYPE *Goniatites sinuosus* Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement. (=v. 7), pl. 128, fig. 2.
 Portage (Ithaca) beds University quarry, Ithaca N. Y.
 S. G. Williams collection
- 3755 $\frac{12306}{7}$ HYPOTYPE *Manticoceras pattersoni* Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 1.
 Portage (Naples) beds Honeoye lake, N. Y.
 J. M. Clarke, donor
- 3756 $\frac{12306}{8}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 2.
 Portage (Naples) beds Honeoye lake, N. Y.
 J. M. Clarke, donor
- 3757 $\frac{12306}{9}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 3.
 Portage (Naples) beds Honeoye lake, N. Y.
 J. M. Clarke, donor
- 3758 $\frac{12306}{10}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 4.
 Portage (Naples) beds Honeoye lake, N. Y.
 J. M. Clarke, donor
- 3759 $\frac{12306}{11}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 6.
 Portage (Naples) beds Honeoye lake, N. Y.
 J. M. Clarke, donor

- 3760 $\frac{12306}{12}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 7.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3761 $\frac{12306}{13}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 9.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3762 $\frac{12306}{14}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 10; pl. 4, fig. 16.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 3763 $\frac{12306}{15}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 11.
Portage (Naples) beds Parrish gully, Naples N. Y.
J. M. Clarke, donor
- 3764 $\frac{12306}{16}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 12.
Portage (Naples) beds Parrish gully, N. Y.
J. M. Clarke, donor
- 3765 $\frac{12306}{17}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 2, fig. 1.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 3766 $\frac{12306}{18}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 2, fig. 3.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3767 $\frac{12306}{19}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 2, fig. 4.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 3768 $\frac{12306}{20}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 3, fig. 4.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 3769 $\frac{12306}{21}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 14.
Portage (Naples) beds Rock Stream, Yates co. N. Y.
J. M. Clarke, donor

- 3770 $\frac{12306}{22}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 15.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 3771 $\frac{12306}{23}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 17.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 3772 $\frac{12306}{24}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 18.
Chemung beds Elmira N. Y.
J. M. Clarke, donor
- 3773 $\frac{12306}{25}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 46, fig. 1.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 3774 $\frac{12306}{26}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 3.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3775 $\frac{12306}{27}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 4, 5.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3776 $\frac{12306}{28}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 6.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3777 $\frac{12306}{29}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 7.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3778 $\frac{12306}{30}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 8.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 3779 $\frac{12306}{31}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 10.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

- 3780 $\frac{12306}{32}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 50, fig. 11.

Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

- 3781 $\frac{12306}{133}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 51, fig. 13, 14.

Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

- 3782 $\frac{12306}{34}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 55, fig. 25.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Manticoceras pattersoni var. styliophilum Clarke

- 3783 $\frac{12307}{1}$ TYPE Manticoceras pattersoni var. styliophilum Clarke. 16th annual report of the New York state geologist. 1898. p. 75, fig. 55; pl. 6, fig. 30.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Manticoceras rhynchostoma Clarke

- 3784 $\frac{12308}{1}$ PLASTOTYPE¹ Manticoceras rhynchostoma Clarke. 16th annual report of the New York state geologist. 1898. p. 65, pl. 4, fig. 6.

Portage (Naples) beds Big Sister creek, Erie co. N. Y.
J. M. Clarke, donor

- 3785 $\frac{12308}{2}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 7.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

- 3786 $\frac{12308}{3}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 8.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

- 3787 $\frac{12308}{4}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 9.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

- 3788 $\frac{12308}{5}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. p. 67, fig. 37; pl. 4, fig. 10.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

¹Type unavoidably destroyed in the process of taking the plastotype.

- 3789 $\frac{12308}{6}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 11.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor
- 3790 $\frac{12308}{7}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 12.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor
- 3791 $\frac{12308}{8}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 13.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor
- 3792 $\frac{12308}{9}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 5, fig. 1.
Portage (Naples) beds Big Sister creek, N. Y.
D. D. Luther, coll. 1897
- 3793 $\frac{12308}{10}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 65, fig. 30.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 3794 $\frac{12308}{11}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 67, fig. 41.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 3795 $\frac{12308}{12}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 68, fig. 42.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, coll. 1898
- 3796 $\frac{12308}{13}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 68, fig. 43.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

Manticoceras simulator Hall (sp.)

- 3797 $\frac{12309}{1}$ TYPE *Goniatites simulator* Hall. Descriptions of new species of *Goniatitidae*. 1874. p. 2.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 1, 2; pl. 74, fig. 8.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 1, 2; pl. 74, fig. 8.

¹ Type unavoidably destroyed in the process of taking the plastotype.

Manticoceras simulator Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 14.

Portage (Ithaca) beds Near Ithaca N. Y.

***Manticoceras sororium* Clarke**

3798 $\frac{12310}{1}$ PLASTOTYPE¹ *Manticoceras sororium* Clarke. 16th annual report of the New York state geologist. 1898. p. 75, pl. 4, fig. 1.

Portage (Naples) beds Big Sister creek, Erie co. N. Y.
J. M. Clarke, donor

3799 $\frac{12310}{2}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 2, 3.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

3800 $\frac{12310}{3}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 4.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

3801 $\frac{12310}{4}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 5.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

3802 $\frac{12310}{5}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. p. 76, fig. 56.

Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

3803 $\frac{12310}{6}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York state geologist. 1898. p. 76, fig. 58

Portage (Naples) beds Angola, Erie co. N. Y.
J. M. Clarke, donor

***Manticoceras tardum* Clarke**

3804 $\frac{12311}{1}$ PLASTOTYPE¹ *Manticoceras tardum* Clarke. 16th annual report of the New York state geologist. 1898. p. 63, pl. 6, fig. 31.

Portage (Naples) beds Briggs gully, Honeoyelake, N. Y.
J. M. Clarke, donor

***Manticoceras vagans* Clarke**

3805 $\frac{12312}{1}$ TYPE *Manticoceras vagans* Clarke. 16th annual report of the New York state geologist. 1898. p. 78; 79, fig. 62; pl. 6, fig. 11, 12.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

¹Type unavoidably destroyed in the process of taking the plastotype.

NAUTILUS Breynius

Nautilus? *see* Nautilus (Nephriticeras) subliratusNautilus acraeus *see* Nautilus (Nephriticeras) acraeus**Nautilus (Nephriticeras) acraeus** Hall

- 3806 $\frac{12320}{1}$ TYPE Nautilus acraeus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 417, pl. 109, fig. 3-5.

Hamilton beds Near Bridgewater, Oneida co. N. Y.
F. B. Meek, R. P. Whitfield, and C. Van Deloo, coll. 1857

Nautilus barrandei *see* Nautilus (Nephriticeras) magister

Nautilus bucinum *see* Nautilus (Nephriticeras) bucinum

Nautilus (Nephriticeras) bucinum Hall

- 3807 $\frac{12321}{1}$ TYPE Nautilus bucinum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 1-3.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 412, pl. 60, fig. 1-3.

Marcellus shale (Agoniatite limestone)

Manlius, Onondaga co. N. Y.

J. Gebhard purchase

- 3808 $\frac{12321}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 4; pl. 106, fig. 6.

Hamilton beds Solsville, Madison co. N. Y.
Geological survey collection

- 3809 $\frac{12321}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 106, fig. 4, 5.

Hamilton beds Cazenovia, Madison co. N. Y.
Lincklaen collection

- 3810 $\frac{12321}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 106, fig. 7.

Hamilton beds Near Cazenovia, N. Y.

- 3811 $\frac{12321}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 3.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

- 3812 $\frac{12321}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 1.

Hamilton beds West shore of Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

- 3813 $\frac{12321}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 2.

Hamilton beds

Cazenovia, Madison co. N. Y.

James Hall, coll.

- 3814 $\frac{12321}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 6.

Hamilton beds

Delphi, Onondaga co. N. Y.

C. Van Deloo and H. H. Smith, coll. 1873.

Nautilus hyatti see *Nautilus* (*Nephriticeras*) *hyatti*

***Nautilus* (*Nephriticeras*) *hyatti* Hall**

- 3815 $\frac{12322}{1}$ PLASTOTYPE *Nautilus hyatti* Hall. 5th annual report of the New York state geologist. 1886. pl. (126) 11, fig. 1.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 37, pl. 126, fig. 1.

Hamilton beds

Cumberland Md.

***Nautilus* (*Discites*) *inopinatus* Hall**

- 3816 $\frac{12323}{1}$ TYPE *Nautilus* (*Discites*) *inopinatus* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 426, pl. 110, fig. 1, 2.

Onondaga limestone

Kelley's island, Sandusky O.

S. G. Williams collection

***Nautilus* (*Nephriticeras*) *juvenis* (Hall) Hyatt**

- 3817 $\frac{12324}{1}$ TYPE *Gyroceras liratum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 57, fig. 5, 6.

Nautilus liratus var. *juvenis* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 411, pl. 56, fig. 5, 6.

Hamilton beds

Cazenovia, Madison co. N. Y.

Nautilus liratum see *Nautilus* (*Nephriticeras*) *liratus*

***Nautilus* (*Nephriticeras*) *liratus* Hall**

- 3818 $\frac{12325}{1}$ HYPOTYPE *Gyroceras liratum* Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 104.

Gyroceras liratum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 1.

Nautilus liratus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 407, pl. 57, fig. 3.

Hamilton beds

Sherburne, Chenango co. N. Y.

- 3819 $\frac{12325}{2}$ TYPE: PLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 8.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 8.
Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase
- 3820 $\frac{12325}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 9.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 9.
Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase
Nautilus liratus var. juvenis see Nautilus (Nephriticeras) juvenis
Nautilus magister see Nautilus (Nephriticeras) magister
Nautilus (Nephriticeras) magister Hall
- 3821 $\frac{12326}{1}$ TYPE Nautilus barrandei Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 64A, fig. 2.
Nautilus magister Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 422, pl. 105, fig. 1.
Hamilton beds Leonardsville, Madison co. N. Y.
F. B. Meek, R. P. Whitfield, and C. Van Deloo, coll. 1857
- 3822 $\frac{12326}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 1.
Hamilton beds Hamburg, Erie co. N. Y.
C. A. White, coll. 1860
- 3823 $\frac{12326}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 6, 7.
Hamilton beds Hamburg N. Y.
C. Van Deloo, coll. 1864
- 3824 $\frac{12326}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 8.
Hamilton beds Hamburg N. Y.
J. W. Hall and C. Van Deloo, coll. 1865
- 3825 $\frac{12326}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 63, fig. 1.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 108, fig. 1, 2.
Hamilton beds Hamburg N. Y.
C. A. White, coll. 1860

Nautilus (Discites) marcellensis Vanuxem (sp.)

- 3826 $\frac{12327}{1}$ TYPE *Goniatites marcellensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146, fig. 2.

Nautilus (Discites) marcellensis Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 10.

Marcellus shale (Agoniatite limestone) Manlius N. Y.
Geological survey collection

- 3827 $\frac{12327}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 65, fig. 1.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

- 3828 $\frac{12327}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 9, 12.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

Nautilus maximus see *Nautilus (Nephriticeras) maximus*

Nautilus (Nephriticeras) maximus (Conrad) Hall

- 3829 $\frac{12328}{1}$ TYPE *Cyrtoceras maximum* Conrad. Geological survey of New York; paleontological department; 1st annual report. 1838. p. 117.

Nautilus maximus Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 64, fig. 1.

Nautilus maximus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 64, fig. 1.

Hamilton beds Solsville, Madison co. N. Y.
J. Gebhard purchase

Nautilus oceanus Hall

- 3830 $\frac{12329}{1}$ TYPE *Nautilus oceanus* Hall. 11th annual report of the Indiana state geologist. 1882. p. 325, type of description (not figured).

Niagaran Flat Rock creek, Shelby co. Ind.
C. D. Walcott, coll. 1878

Nautilus oriens see *Nautilus (Nephriticeras) oriens*

Nautilus (Nephriticeras) oriens Hall

- 3831 $\frac{12330}{1}$ TYPE *Nautilus oriens* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 61, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 420, pl. 61, fig. 1.

Hamilton beds Richmondville, Schoharie co. N. Y.
J. Gebhard purchase

3832 $\frac{12330}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 105, fig. 2.

Hamilton beds Richmondville N. Y.
J. Gebhard purchase

3833 $\frac{12330}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 106, fig. 8; supplement (=v. 7). 1888. pl. 126, fig. 2.

Hamilton beds Richmondville N. Y.
J. Gebhard purchase

Nautilus subliratus see *Nautilus* (*Nephriticeras*) *subliratus*

***Nautilus* (*Nephriticeras*) *subliratus* Hall**

3834 $\frac{12331}{1}$ TYPE *Gyroceras subliratum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 2.

Nautilus subliratus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 409, pl. 57, fig. 4.

Hamilton beds Earlville, Madison co. N. Y.
Geological survey collection

3835 $\frac{12331}{2}$ TYPE? *Nautilus*? Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 5.

Nautilus subliratus? Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 57, fig. 5.

. Hamilton beds Basin gulf, Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

3836 $\frac{12331}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 57, fig. 6, 7.

Hamilton beds Earlville, N. Y.
Geological survey collection

Nephriticeras juvenis see *Nautilus* (*Nephriticeras*) *juvenis*

Oncoceras expansum see *Phragmoceras*? *expansum*

Ormoceras? *gracile* see *Hormoceras*? *gracile*

Ormoceras remotiseptum see *Hormoceras remotiseptum*

Ormoceras tenuifilum *see* *Hormoceras tenuifilum*

ORTHOCERAS Breynius

Orthoceras sp.

- 3837 $\frac{12340}{1}$ TYPE (of protoconch) *Orthoceras* sp. Clarke. American geologist. 1893. 12: 114, fig. 1, 2.

Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 23-25.

Genesee shale (*Styliola* limestone)

Canandaigua lake, N. Y.

J. M. Clarke, donor

Orthoceras sp. indet. Hall

- 3838 $\frac{12341}{1}$ HYPOTYPE *Orthoceras* sp. indet. Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 304, pl. 83, fig. 13.

Hamilton beds Bosanquet, Ontario, Can.

J. De Cew, coll. 1865

Orthoceras aegea *see* *Orthoceras* (*Spyroceras*) *aegea*

Orthoceras (*Spyroceras*) *aegea* Hall

- 3839 $\frac{12342}{1}$ TYPE *Orthoceras aegea* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 52.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 7, 8.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

H. H. Smith and C. Van Deloo, coll. 1874

- 3840 $\frac{12342}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 9.

Hamilton beds Pratt's falls, N. Y.

J. W. Hall and G. B. Simpson, coll. 1872

- 3841 $\frac{12342}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 10.

Hamilton beds Genesee, Livingston co. N. Y.

C. Van Deloo, coll. 1865

- 3842 $\frac{12342}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 11.

Hamilton beds Genesee N. Y.

C. Van Deloo, coll. 1865

Orthoceras amycus *see* *Orthoceras* (*Cycloceras*) *amycus*

Orthoceras (Cycloceras) amycus Hall

- 3843 $\frac{12343}{1}$ TYPE *Orthoceras amycus* Hall. 11th annual report of the Indiana state geologist. 1882. p. 324, pl. 33, fig. 3, 4.

Niagaran

Flat Rock creek, Shelby co. Ind.

C. D. Walcott, coll. 1878

Orthoceras anguis Hall

- 3844 $\frac{12344}{1}$ TYPE *Orthoceras anguis* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 312, pl. 89, fig. 9.

Portage (Ithaca) beds

Cascadilla creek, upper fall, Ithaca N. Y.

S. G. Williams collection.

Orthoceras aptum Hall

- 3845 $\frac{12345}{1}$ TYPE *Orthoceras typum* (Saemann) Hall (in part). Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 38, fig. 8.

Orthoceras aptum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 282, pl. 38, fig. 8.

Marcellus shale (Agoniatite limestone)

Schoharie N. Y.

J. Gebhard purchase

Orthoceras atreus Hall

- 3846 $\frac{12346}{1}$ TYPE *Orthoceras atreus* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 305, pl. 88, fig. 1.

Portage (Naples) beds Portageville, Wyoming co. N. Y.

Orthoceras aulax Hall

- 3847 $\frac{12347}{1}$ TYPE *Orthoceras aulax* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 293, pl. 84, fig. 18.

Hamilton beds

Hamburg, Erie co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1865.

Orthoceras baculum see *Orthoceras stylus***Orthoceras bebryx** Hall

- 3848 $\frac{12348}{1}$ TYPE *Orthoceras typum*? (Saemann) Hall (in part). Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 38, fig. 10.

Orthoceras bebryx Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 275, pl. 38, fig. 10.

Hamilton beds

Cazenovia N. Y.

L. Lincklaen, donor

3849 $\frac{12348}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 39, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 39, fig. 2.

Hamilton beds

Cazenovia N. Y.

L. Lincklaen, donor

3850 $\frac{12348}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 83, fig. 14.

Hamilton beds

Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

3851 $\frac{12348}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 84, fig. 11.

Hamilton beds

York, Livingston co. N. Y.

C. Van Deloo, coll. 1865

Orthoceras bebryx Hall *var.* **cayuga** Hall

3852 $\frac{12349}{1}$ TYPE *Orthoceras bebryx* var. *cayuga* Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 276,
pl. 86, fig. 3.

Portage (Ithaca) beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

3853 $\frac{12349}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 86, fig. 4.

Portage (Ithaca) beds

Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

3854 $\frac{12349}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 86, fig. 5.

Portage (Ithaca) beds

Cortland, Cortland co. N. Y.

Pickett collection

3855 $\frac{12349}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 91, fig. 1.

Portage (Ithaca) beds

Cascadilla ravine quarry,

Ithaca N. Y.

S. G. Williams collection

3856 $\frac{12349}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 91, fig. 2.

Portage (Ithaca) beds University quarry, Ithaca N. Y.

S. G. Williams collection

3857 $\frac{12349}{6}$ TYPE Hall. Paleontology of New York. 1879 v. 5,
pt 2, pl. 91, fig. 3.

Portage (Ithaca) beds

Earl's quarry, Ithaca N. Y.

S. G. Williams collection

- 3858 $\frac{12349}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 91, fig. 4, 5.
Portage (Ithaca) beds Earl's quarry, Ithaca N. Y.
S. G. Williams collection
- 3859 $\frac{12349}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 92, fig. 2.
Portage (Ithaca) beds University quarry, Ithaca, N. Y.
S. G. Williams collection
- 3860 $\frac{12349}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 92, fig. 3.
Portage (Ithaca) beds University quarry, Ithaca N. Y.
S. G. Williams collection
- 3861 $\frac{12349}{10}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 92, fig. 4, 5.
Portage (Ithaca) beds University quarry, Ithaca N. Y.
S. G. Williams collection
- Orthoceras caelamen* see *Orthoceras* (*Spyroceras*) *caelamen*

***Orthoceras* (*Spyroceras*) *caelamen* Hall**

- 3862 $\frac{12351}{1}$ TYPE *Orthoceras crotalum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 10 (lower part).
Orthoceras caelamen Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 298, pl. 42, fig. 10 (lower part); pl. 82, fig. 16.
Hamilton beds Vincent [Muttonville], Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 3863 $\frac{12351}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 22.
Hamilton beds Moravia N. Y.
S. G. Williams collection
- 3864 $\frac{12351}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 23.
Hamilton beds Moravia N. Y.
S. G. Williams collection

***Orthoceras carnosum* Hall**

- 3865 $\frac{12352}{1}$ TYPE *Orthoceras carnosum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 258, pl. 35, fig. 11.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras cingulum Hall

3866 $\frac{12353}{1}$ TYPE *Orthoceras cingulum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 240, pl. 76, fig. 2.

Schoharie grit

Schoharie N. Y.

3867 $\frac{12353}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 76, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Orthoceras clavatum *see* *Orthoceras desideratum*

Orthoceras collatum Hall

3868 $\frac{12354}{1}$ TYPE *Orthoceras collatum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 252, pl. 80, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3869 $\frac{12354}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 3, 4.

Schoharie grit

Clarksville, Albany co. N. Y.

Orthoceras consortale Hall

3870 $\frac{12355}{1}$ TYPE *Orthoceras consortale* Hall. 5th annual report of the New York state geologist. 1886. pl. (118) 2, fig. 3-5.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), p. 29, pl. 118, fig. 3-5.

Chemung (?) beds

Panama, Chautauqua co. N. Y.

James Hall, coll. 1870

Orthoceras constrictum Vanuxem

3871 $\frac{12356}{1}$ HYPOTYPE *Orthoceras constrictum* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 152.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 11.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

3872 $\frac{12356}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 13.

Hamilton beds

Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Orthoceras coralliferum Hall

- 3873 $\frac{12357}{1}$ TYPE *Orthoceras coralliferum* Hall. Paleontology of New York. 1847. 1:312, pl. 85, fig. 3.

Utica shale

Turin, Lewis co. N. Y.

Geological survey collection

- 3874 $\frac{12357}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 86, fig. 1c.

Lorraine beds

Lewis county, N. Y.

Geological survey collection

Orthoceras creon see *Orthoceras* (*Spyroceras*) *creon*

Orthoceras (Spyroceras) creon Hall

- 3875 $\frac{12358}{1}$ TYPE *Orthoceras creon* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 260, pl. 79, fig. 14, 15.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Orthoceras crotalum see *Orthoceras* (*Spyroceras*) *caelamen*

Orthoceras crotalum see *Orthoceras* (*Spyroceras*) *crotalum*

Orthoceras (Spyroceras) crotalum Hall

- 3876 $\frac{12359}{1}$ HYPOTYPE *Orthoceras crotalum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 50.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 2.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

- 3877 $\frac{12359}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 5, 11.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 5, 11.

Hamilton beds

Hamilton, Madison co. N. Y.

- 3878 $\frac{12359}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 6.

Hamilton beds

Pratt's falls N. Y.

G. B. Simpson, coll. 1871

- 3879 $\frac{12359}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 42, fig. 7.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 42, fig. 7.
Hamilton beds Otisco lake, Onondaga co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1872
- 3880 $\frac{12359}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 42, fig. 12.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 42, fig. 12.
Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 3881 $\frac{12359}{6}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 82, fig. 1 (2 specimens).
Hamilton beds Pratt's falls N. Y.
G. B. Simpson, coll. 1863 and 1871
- 3882 $\frac{12359}{7}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 82, fig. 2.
Hamilton beds Delphi, Onondaga co. N. Y.
G. B. Simpson, coll. 1863
- 3883 $\frac{12359}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 82, fig. 3, 4.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 3884 $\frac{12359}{9}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 82, fig. 5; pl. 113, fig. 13, 13a.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1876
- 3885 $\frac{12359}{10}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 82, fig. 6.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

Orthoceras demus Hall

- 3886 $\frac{12360}{1}$ TYPE *Orthoceras demus* Hall. Paleontology of
New York. 1879. v. 5, pt 2, p. 311, pl. 90, fig. 1.
Chemung beds Belmont, Allegany co. N. Y.
- 3887 $\frac{12360}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 90, fig. 4.
Portage (Ithaca) beds Cascadilla quarry, Ithaca N. Y.
S. G. Williams collection

- 3888 $\frac{12360}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 90, fig. 5.

Chemung beds

Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

Orthoceras desideratum Hall

- 3889 $\frac{12361}{1}$ TYPE *Orthoceras clavatum* Hall. Paleontology of New York. 1859. 3:345, pl. 71, fig. 4.

Orthoceras desideratum Hall in Miller's Catalogue of North American geology and paleontology. 1889. p. 447.

Coeymans limestone

Schoharie N. Y.

J. Gebhard purchase

On specimen with type of *Beyrichia parasitica* Hall. Paleontology of New York. 1859. 3:376 (not figured). Jones. Quarterly journal geological society. 1890. 46:17, fig. 1.

Orthoceras duramen Hall

- 3890 $\frac{12362}{1}$ TYPE *Orthoceras duramen* Hall. 5th annual report of the New York state geologist. 1886. pl. (117) 1, fig. 1.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 25, pl. 117, fig. 1.

Schoharie grit

Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

Orthoceras emaceratum Hall

- 3891 $\frac{12363}{1}$ TYPE *Orthoceras emaceratum* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 170, pl. 8, fig. 7.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 39, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 39, fig. 4.

Hamilton beds

Hamburg, Erie co. N. Y.

- 3892 $\frac{12363}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 16.

Hamilton beds

Jaycox run, Livingston co. N. Y.

C. Van Deloo, coll. 1865

Orthoceras eriense Hall

- 3893 $\frac{12364}{1}$ TYPE *Orthoceras robustum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 40, fig. 4.

Orthoceras eriense Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 274, pl. 40, fig. 4.

Hamilton beds

Otisco, Onondaga co. N. Y.

- 3894 $\frac{12364}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 87, fig. 1, 2.

Hamilton beds

Lake Erie shore, N. Y.

Orthoceras exile Hall

- 3895 $\frac{12365}{1}$ HYPOTYPE *Orthoceras exile* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 50.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 8, fig. 5.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 39, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 39, fig. 3.

Hamilton beds

Cazenovia N. Y.

L. Lincklaen, donor

- 3896 $\frac{12365}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 14.

Hamilton beds

Norton's landing, Cayuga lake, N. Y.

J. W. Hall, coll. 1866.

- 3897 $\frac{12365}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 15.

Hamilton beds

Norton's landing, Cayuga lake, N. Y.

J. W. Hall, coll. 1866.

Orthoceras expositum Hall

- 3898 $\frac{12366}{1}$ TYPE *Orthoceras expositum* Hall. 5th annual report of the New York state geologist. 1886. pl. (118) 2, fig. 2.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 29, pl. 118, fig. 2.

Chemung beds

Austinsville, Bradford co. Pa.

A. Sherwood, coll. 1873.

Orthoceras fenestrulatum see *Orthoceras* (Kionoceras) fenestrulatum

Orthoceras (Kionoceras) fenestrulatum Clarke

- 3899 $\frac{12367}{1}$ TYPE *Orthoceras fenestrulatum* Clarke. 13th annual report of the New York state geologist. 1894. 1: 168, pl. 2, fig. 10, 11.

Marcellus shale (Stafford limestone)

Stafford, Genesee co. N. Y.

J. M. Clarke and J. Van Deloo, coll. 1888.

Orthoceras fluctum Hall

- 3900 $\frac{12368}{1}$ TYPE *Orthoceras fluctum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 239, pl. 76, fig. 4, 7.
Schoharie grit Clarksville, Albany co. N. Y.
- 3901 $\frac{12368}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 76, fig. 5, 6 (upper half of specimen only; lower half is *O. luxum*).
Schoharie grit Clarksville N. Y.

Orthoceras fulgidum Hall

- 3902 $\frac{12369}{1}$ TYPE *Orthoceras fulgidum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 310, pl. 90, fig. 2.
Portage (Ithaca) beds Cascadilla creek, Ithaca N. Y.
S. G. Williams collection

Orthoceras fusiforme Hall

- 3903 $\frac{12370}{1}$ TYPE *Orthoceras fusiforme* Hall. Paleontology of New York. 1847. 1:60, pl. 20, fig. 1.
Black River limestone Watertown N. Y.

Orthoceras fustis Hall

- 3904 $\frac{12371}{1}$ TYPE *Orthoceras fustis* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 281, pl. 83, fig. 11; pl. 113, fig. 16, 17.
Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

Orthoceras (Spyroceras) geneva Hall

- 3905 $\frac{12372}{1}$ TYPE *Orthoceras geneva* Clarke. 13th annual report of the New York state geologist. 1894. 1: 168, pl. 2, fig. 5-7.
Onondaga limestone Geneva N. Y.
D. F. Lincoln, donor

Orthoceras heldbergiae Hall

- 3906 $\frac{12373}{1}$ TYPE *Orthoceras heldbergiae* Hall. Paleontology of New York. 1859. 3: 346, pl. 72, fig. 2.
New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

Orthoceras incarcerationum see *Orthoceras*
(*Spyroceras*) *incarceratum*

Orthoceras (Spyroceras) incarcerationum Clarke

- 3907 $\frac{12373a}{1}$ TYPE *Orthoceras incarcerationum* Clarke. 13th annual report of the New York state geologist. 1894. 1: 170, pl. 2, fig. 3, 4.

Marcellus shale Livonia salt shaft, Livonia, N. Y.
D. D. Luther, coll. 1891

Orthoceras inoptatum see *Orthoceras*
(*Kionoceras*) *inoptatum*

Orthoceras (Kionoceras) inoptatum Hall

- 3908 $\frac{12374}{1}$ TYPE *Orthoceras inoptatum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 267, pl. 112, fig. 9; 10.

Onondaga limestone Clarence Hollow, Erie co. N. Y.

Orthoceras laqueatum see *Orthoceras*
(*Kionoceras*) *laqueatum*

Orthoceras (Kionoceras) laqueatum Hall

- 3909 $\frac{12375}{1}$ TYPE *Orthoceras laqueatum* Hall. Paleontology of New York. 1847. 1: 13, pl. 3, fig. 12.

Beekmantown limestone (loose in drift)

Geological survey collection

Orthoceras leander Hall

- 3910 $\frac{12376}{1}$ TYPE *Orthoceras leander* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 309, pl. 90, fig. 6.

Ithaca beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

- 3911 $\frac{12376}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 90, fig. 7.

Ithaca beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Orthoceras lima see *Orthoceras* (*Spyroceras*) *lima*

Orthoceras (Spyroceras) lima Hall

- 3912 $\frac{12377}{1}$ TYPE *Orthoceras lima* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 303, pl. 113, fig. 24, 25.

Hamilton beds Cazenovia, Madison co. N. Y.

S. G. Williams collection

Orthoceras lineolatum Hall (sp.)

- 3913 $\frac{12378}{1}$ TYPE *Endoceras proteiforme* var. *lineolatum* Hall. Paleontology of New York. 1847. 1: 211, pl. 45, fig. 4c, 4d.

Trenton limestone Middleville, Herkimer co. N. Y.

Orthoceras linteum Hall

- 3914 $\frac{12379}{1}$ TYPE *Orthoceras linteum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 277, pl. 87, fig. 3, 4.

Hamilton beds. Leonardsville, Madison co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Orthoceras luxum Hall

- 3915 $\frac{12380}{1}$ HYPOTYPE *Orthoceras pelops* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 3.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

- 3916 $\frac{12380}{2}$ TYPE *Orthoceras pelops* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 4.

Orthoceras luxum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 244, pl. 35, fig. 4.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

- 3917 $\frac{12380}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 1 (lower part).

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 5.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

- 3918 $\frac{12380}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 6.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

- 3919 $\frac{12380}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 7.

Schoharie grit Clarksville, Albany co. N. Y.

- 3920 $\frac{12380}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 76, fig. 1.

Schoharie grit Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

- 3921 $\frac{12380}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 76, fig. 5 (lower part; upper part is *O. fluctum*).
Schoharie grit Clarksville N. Y.
- 3922 $\frac{12380}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 1.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3923 $\frac{12380}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 2.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3924 $\frac{12380}{10}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 3.
Schoharie grit Clarksville N. Y.
C. Van Deloo, coll. 1862
- 3925 $\frac{12380}{11}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 4.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3926 $\frac{12380}{12}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 5.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3927 $\frac{12380}{13}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3928 $\frac{12380}{14}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 7.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3929 $\frac{12380}{15}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 77, fig. 8; pl. 78B, fig. 3.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3930 $\frac{12380}{16}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 78, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

- 3931 $\frac{12380}{17}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78, fig. 7.
Schoharie grit Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861
- 3932 $\frac{12380}{18}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 13.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3933 $\frac{12380}{19}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 12.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3934 $\frac{12380}{20}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 13.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3935 $\frac{12380}{21}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 14.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
Orthoceras marcellense *see* *Orthoceras* (*Kionoceras*) *marcellense*
- Orthoceras* (*Kionoceras*) *marcellense*** (Vanuxem) Hall
- 3936 $\frac{12381}{1}$ TYPE Marcellus orthocera Vanuxem. Geology of New York; report on the 3d district. 1842. p. 147.
Orthoceras marcellense Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 278, pl. 38, fig. 7.
Marcellus shale (Agoniatite limestone)
Falls of Oneida creek, N. Y.
- 3937 $\frac{12381}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 1.
Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.
- 3938 $\frac{12381}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 3.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
- 3939 $\frac{12381}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 6.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
H. H. Smith, coll. 1873

- 3940 $\frac{12381}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 8.

Marcellus shale (Agoniatite limestone) Manlius N. Y.

H. H. Smith, coll. 1873

- 3941 $\frac{12381}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 9.

Marcellus shale (Agoniatite limestone)

Marcellus, Onondaga co. N. Y.

C. A. White, coll. 1860

- 3942 $\frac{12381}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 10.

Marcellus shale (Agoniatite limestone)

Near Manlius N. Y.

H. H. Smith, coll. 1873

Orthoceras masculum Hall

- 3943 $\frac{12382}{1}$ TYPE *Orthoceras masculum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 238, pl. 78B, fig. 1.

Schoharie grit

Schoharie N. Y.

- 3944 $\frac{12382}{2}$ TYPES (of measurements) 2 SPECIMENS Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 238.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Orthoceras medium Hall

- 3945 $\frac{12383}{1}$ TYPE *Orthoceras medium* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 254, pl. 79, fig. 11, 12.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Orthoceras medullare see *Orthoceras* (*Kionoceras*) *medullare*

Orthoceras (Kionoceras) medullare Hall

- 3946 $\frac{12384}{1}$ HYPOTYPE *Orthoceras medullare* Hall. Geological survey of Wisconsin; report of progress. 1860.

Hall. 11th annual report of the Indiana state geologist. 1882. p. 323 (hypotype of description).

Niagaran

Flat Rock creek, Shelby co. Ind.

C. D. Walcott, coll. 1878

Orthoceras multicameratum (Emmons) Hall

- 3947 $\frac{12385}{1}$ TYPE *Orthoceras multicameratus* Emmons. Geology of New York; report on the 2d district. 1842 p. 382.

Orthoceras multicameratum Hall. Paleontology of New York. 1847. v. 1, pl. 11, fig. 1c.

Lowville limestone

Watertown N. Y.

Geological survey collection

Orthoceras multicinctum *see* *Orthoceras* (*Cycloceras*) *multicinctum*

***Orthoceras* (*Cycloceras*) *multicinctum* Hall**

3948 $\frac{12386}{1}$ TYPE *Orthoceras multicinctum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 48.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 7, fig. 3.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3949 $\frac{12386}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 7, fig. 2.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 2.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

3950 $\frac{12386}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

***Orthoceras* (*Spyroceras*) *nuntioides* Clarke**

3951 $\frac{12387}{1}$ TYPE: PLASTOTYPE *Orthoceras nuntioides* Clarke. 13th annual report of the New York state geologist. 1894. 1: 170, pl. 2, fig. 8.

Marcellus shale

Chapinville, Ontario co. N. Y.

J. M. Clarke, coll.

Orthoceras nuntium *see* *Orthoceras* (*Spyroceras*) *nuntium*

Orthoceras (Spyroceras) nuntium Hall

- 3952 $\frac{12358}{1}$ **HYPOTYPE** *Orthoceras nuntium* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 51.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 6, 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 6, 7.

Hamilton beds

Hamburg N. Y.

- 3953 $\frac{12388}{2}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 10.

Hamilton beds

Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3954 $\frac{12388}{3}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 14.

Hamilton beds

Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3955 $\frac{12388}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 14.

Hamilton beds

Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

- 3956 $\frac{12388}{5}$ **HYPOTYPE** Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 15.

Hamilton beds

Pratt's falls N. Y.

G. B. Simpson, coll. 1871

Orthoceras oedipus see *Orthoceras* (Spyroceras) *oedipus*

Orthoceras (Spyroceras) oedipus Hall

- 3957 $\frac{12388}{1}$ **TYPE** *Orthoceras oedipus* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 294, pl. 37, fig. 6.

Hamilton beds

Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 3958 $\frac{12388}{2}$ **TYPE** Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 17.

Hamilton beds

Jaycox run, Livingston co. N. Y.

C. Van Deloo, coll. 1865

- 3959 $\frac{12389}{3}$ HYPOPLASTOTYPE¹ Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 2, fig. 12.
Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

Orthoceras oppletum Hall

- 3960 $\frac{12390}{1}$ TYPE *Orthoceras oppletum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 248, pl. 81, fig. 9-11.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3961 $\frac{12390}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 12.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3962 $\frac{12390}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 11.
Schoharie grit The Helderberg, Albany co. N. Y.
J. Gebhard purchase

Orthoceras pacator Hall

- 3963 $\frac{12391}{1}$ TYPE *Orthoceras pacator* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 307, pl. 89, fig. 1.
Portage (Naples) beds Mount Morris, Livingston co. N. Y.
- 3964 $\frac{12391}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 3.
Portage (Naples) beds Mount Morris N. Y.
- 3965 $\frac{12391}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 4.
Portage (Naples) beds Mount Morris N. Y.
- 3966 $\frac{12391}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 5.
Portage (Ithaca) beds Ithaca N. Y.
C. Van Deloo, coll. 1872
- 3967 $\frac{12391}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 6.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Orthoceras palmatum Hall

- 3968 $\frac{12392}{1}$ TYPE *Orthoceras palmatum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 312, pl. 90, fig. 9, 10.
Chemung beds Southwestern New York

¹ Type unavoidably destroyed in process of taking the plastotype.

Orthoceras pauciseptum Hall

- 3969 $\frac{12393}{1}$ TYPE *Orthoceras pauciseptum* Hall. Paleontology of New York. 1859. 3: 346, pl. 72, fig. 5a, 5b.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

Orthoceras pelops see *Orthoceras luxum*

Orthoceras pelops see *Orthoceras* (*Geisonoceras*) *pelops*

Orthoceras pelops see *Orthoceras tantalus*

Orthoceras (Geisonoceras) pelops Hall

- 3970 $\frac{12394}{1}$ TYPE *Orthoceras pelops* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 45.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3971 $\frac{12394}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 2, 2a, 3.

Schoharie grit

The Helderberg, Albany co. N. Y.

- 3972 $\frac{12394}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 1-3.

Schoharie grit

Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

- 3973 $\frac{12394}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 4.

Schoharie grit

The Helderberg, N. Y.

- 3974 $\frac{12394}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 5.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 3975 $\frac{12394}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 6.

Schoharie grit

The Helderberg, N. Y.

J. Gebhard purchase

- 3976 $\frac{12394}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 37, fig. 4.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

- 3977 $\frac{12394}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78B, fig. 2.

Schoharie grit

Knox N. Y.

C. Van Deloo, coll. 1862

Orthoceras pertextum see *Orthoceras* (*Spyroceras*) *pertextum*

***Orthoceras* (*Spyroceras*) *pertextum* Hall**

- 3978 $\frac{12395}{1}$ TYPE *Orthoceras pertextum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 314, pl. 90, fig. 16, 17.

Portage (Ithaca) beds Cornell-Fisk quarry, Ithaca N. Y.

S. G. Williams collection

***Orthoceras pervicax* Hall**

- 3979 $\frac{12396}{1}$ TYPE *Orthoceras pervicax* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 257, pl. 79, fig. 9, 10.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

***Orthoceras pravum* Hall**

- 3980 $\frac{12397}{1}$ TYPE *Orthoceras tetricum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 36, fig. 2.

Orthoceras pravum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 255, pl. 35, fig. 14; pl. 36, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3981 $\frac{12397}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 1.

Schoharie grit

Clarksville N. Y.

C. Van Deloo, coll. 1862

- 3982 $\frac{12397}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 1, pl. 81, fig. 2, 5; pl. 112, fig. 17.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3983 $\frac{12397}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 3, 4; pl. 112, fig. 16.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3984 $\frac{12397}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 6.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 3985 $\frac{12397}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 112, fig. 15.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras primigenium (Vanuxem) Hall

- 3986 $\frac{12398}{1}$ TYPE Orthoceras primigenia Vanuxem. Geology
of New York; report on the 3d district. 1842. p. 36.
Orthoceras primigenium Hall. Paleontology
of New York. 1847. v. 1, pl. 3, fig. 11a.
Beekmantown limestone
Fort Plain, Montgomery co. N. Y.
Geological survey collection

Orthoceras procerum Hall

- 3987 $\frac{12399}{1}$ TYPE Othoceras procerum Hall. Illustrations
of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
p. 249, pl. 35, fig. 15.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3988 $\frac{12399}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 35, fig. 16; pl. 78A, fig. 1.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3989 $\frac{12399}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 78A, fig. 2, 3.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3990 $\frac{12399}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 78A, fig. 4, 5.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 3991 $\frac{12399}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5
pt 2, pl. 78A, fig. 6, 7.
Schoharie grit Clarksville N. Y.
- 3992 $\frac{12399}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 78A, fig. 8.
Schoharie grit Clarksville N. Y.
J. Gebhard purchase

- 3993 $\frac{12399}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl 79, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

- 3994 $\frac{12399}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 79, fig. 7, 8.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras profundum see *Orthoceras* (*Spyroceras*) *profundum*

***Orthoceras* (*Spyroceras*) *profundum* Hall**

- 3995 $\frac{12400}{1}$ HYPOTYPE *Orthoceras profundum* Hall.
Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 48.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 37, fig. 5.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 37, fig. 8.
Onondaga limestone Black Rock, Erie co. N. Y.
Orthoceras robustum see *Orthoceras* (*Geisonoceras*?) *erienne*

***Orthoceras rude* Hall**

- 3996 $\frac{12401}{1}$ TYPE *Orthoceras rudis* Hall. Paleontology of New York. 1859. 3: 346, pl. 72, fig. 4a, 4b.
Helderbergian Schoharie N. Y.
J. Gebhard purchase

Orthoceras rudens see *Orthoceras* (*Cycloceras*) *rudens*

***Orthoceras* (*Cycloceras*) *rudens* Hall**

- 3997 $\frac{12402}{1}$ TYPE *Orthoceras rudens* Hall. 5th annual report of the New York state geologist. 1886. pl. (118)2, fig. 1.
Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 28, pl. 118, fig. 1.
Hamilton beds? Livingston county, N. Y.
Pickett collection

Orthoceras sceptrum Hall

- 3998 $\frac{12403}{1}$ TYPE *Orthoceras sceptrum* Hall. 5th annual report of the New York state geologist. 1886. pl. (117)1, fig. 2.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 26, pl. 117, fig. 2.

Onondaga limestone Cherry Valley, Otsego co. N. Y.
J. W. Hall, coll. 1877

Orthoceras scintilla Hall

- 3999 $\frac{12404}{1}$ TYPE *Orthoceras scintilla* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 293, pl. 84, fig. 19, 20.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 4000 $\frac{12404}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 21; pl. 113, fig. 6.

Hamilton beds Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 4001 $\frac{12404}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 7.

Hamilton beds Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 4002 $\frac{12404}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 8.

Hamilton beds Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 4003 $\frac{12404}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 9.

Hamilton beds Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 4004 $\frac{12404}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 10.

Hamilton beds Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 4005 $\frac{12404}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 11.

Hamilton beds Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

- 4006 $\frac{12404}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 12.
 Hamilton beds Pratt's falls N. Y.
 C. Van Deloo and H. H. Smith, coll. 1874

Orthoceras simulator Hall

- 4007 $\frac{12405}{1}$ HYPOTYPE *Orthoceras simulator* Hall. 28th annual report of the New York state museum of natural history. 1876. p. 179.
 Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 1, 2.
 Niagaran Waldron Ind.
 C. D. Walcott and C. Van Deloo, coll. 1878

Orthoceras staffordensis *see* *Orthoceras* (*Kionoceras*) *staffordense*

Orthoceras (*Kionoceras*) staffordense Clarke

- 4008 $\frac{12406}{1}$ TYPE *Orthoceras staffordensis* Clarke. 13th annual report of the New York state geologist. 1894. 1: 169, pl. 2, fig. 1, 2.
 Marcellus shale (Stafford limestone)
 Stafford, Genesee co. N. Y.
 C. A. White and C. Van Deloo, coll. 1860

Orthoceras stylus Hall

- 4009 $\frac{12407}{1}$ TYPE *Orthoceras baculum* Hall Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 46.
Orthoceras baculum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 36, fig. 4.
Orthoceras stylus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 253, pl. 36, fig. 2; pl. 79, fig. 1.
 Schoharie grit Schoharie N. Y.
 J. Gebhard purchase
- 4010 $\frac{12407}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 36, fig. 3.
 Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 36, fig. 3.
 Schoharie grit Schoharie N. Y.
 J. Gebhard purchase

- 4011 $\frac{12407}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 79, fig. 3.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras subulatum Hall

- 4012 $\frac{12408}{1}$ HYPOTYPE *Orthoceras subulatum* Hall. Geology
of New York; report on the 4th district. 1843. p. 180.
Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 84, fig. 1.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 4013 $\frac{12408}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 84, fig. 2.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 4014 $\frac{12408}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 84, fig. 4.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 4015 $\frac{12408}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 84, fig. 6, 10.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 4016 $\frac{12408}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 84, fig. 7, 7+.
Hamilton beds Delphi, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 4017 $\frac{12408}{6}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 84, fig. 8.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 4018 $\frac{12408}{7}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 84, fig. 9.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874
- 4019 $\frac{12408}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 86, fig. 1, 2.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

Orthoceras tantalus Hall

4020 $\frac{12409}{1}$ TYPE *Orthoceras pelops* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 3 (upper part).

Orthoceras tantalus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 241, pl. 35, fig. 8, 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4021 $\frac{12409}{2}$ TYPE Hall. Illustrations of Devonian fossils, 1876. Cephalopoda, pl. 35, fig. 1 (upper part).

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 10.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4022 $\frac{12409}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 7.

Schoharie grit

Clarksville, Albany co. N. Y.

4023 $\frac{12409}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 10.

Schoharie grit

Clarksville N. Y.

Orthoceras telamon Hall

4024 $\frac{12410}{1}$ TYPE *Orthoceras telamon* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 291, pl. 85, fig. 3, 4.

Hamilton beds

Menteth's point, Canandaigua lake, N. Y.

4025 $\frac{12410}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 12.

Hamilton beds

Menteth's point, Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Orthoceras tenuiseptum Hall

4026 $\frac{12411}{1}$ TYPE *Orthoceras tenuiseptum* Hall. Paleontology of New York. 1847. 1:35, pl. 7, fig. 6.

Chazy limestone

Chazy, Clinton co. N. Y.

Geological survey collection

Orthoceras teretiforme see *Orthoceras* (*Cycloceras*) *teretiforme*

Orthoceras (Cycloceras) teretiforme Hall

4027 $\frac{12412}{1}$ TYPE *Orthoceras teretiforme* Hall. Paleontology of New York. 1847. 1:198, pl. 42, fig. 8a, b.

Trenton limestone

Watertown N. Y.

Orthoceras tetricum Hall

4028 $\frac{12413}{1}$ TYPE *Orthoceras tetricum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 45.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78B, fig. 4.

Schoharie grit

Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

4029 $\frac{12413}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 2.

Schoharie grit

Clarksville N. Y.

C. Van Deloo, coll. 1862

4030 $\frac{12413}{3}$ TYPE Hall. Paleontology of New York. 1879 v. 5, pt 2, pl. 80, fig. 5, 6.

Schoharie grit

Clarksville N. Y.

C. Van Deloo, coll. 1862

4031 $\frac{12413}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 8.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4032 $\frac{12413}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Orthoceras tetricum see *Orthoceras pravum*

Orthoceras thestor see *Orthoceras* (*Cycloceras*) *thestor*

Orthoceras (Cycloceras) thestor Hall

4033 $\frac{12414}{1}$ TYPE *Orthoceras thestor* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 302, pl. 82, fig. 18.

Marcellus shale

Schoharie N. Y.

J. Gebhard purchase

Orthoceras thoas see *Orthoceras* (*Dawsonoceras*) *thoas*

Orthoceras (Dawsonoceras) thoas Hall

4034 $\frac{12415}{1}$ HYPOTYPE *Orthoceras thoas* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 47.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 41, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 41, fig. 1.

Onondaga limestone

Schoharie N. Y.
J. Gebhard purchase

4035 $\frac{12415}{2}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 41, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 41, fig. 2.

Onondaga limestone

Schoharie N. Y.
J. Gebhard purchase

4036 $\frac{12415}{3}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 41, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 41, fig. 3.

Schoharie grit

Schoharie N. Y.
J. Gebhard purchase

4037 $\frac{12415}{4}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 41, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 41, fig. 5.

Schoharie grit

Schoharie N. Y.
J. Gebhard purchase

4038 $\frac{12415}{5}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 41, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 41, fig. 6.

Schoharie grit

Schoharie N. Y.
J. Gebhard purchase

4039 $\frac{12415}{6}$ **HYPOTYPE** Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 41, fig. 8.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 41, fig. 8.

Onondaga limestone Clarence Hollow, Erie co. N. Y.
C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

4040 $\frac{12415}{7}$ **HYPOTYPE** Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 78B, fig. 5.

Schoharie grit

Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

- 4041 $\frac{12415}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 79, fig. 13.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 4042 $\frac{12415}{9}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 80, fig. 10.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 4043 $\frac{12415}{10}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 80, fig. 11.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 4044 $\frac{12415}{11}$ HYPOTYPE Hall. Paleontology of New York. 1879.
v. 5, pt 2, pl. 112, fig. 7.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860

Orthoceras thyestes Hall

- 4045 $\frac{12416}{1}$ TYPE *Orthoceras thyestes* Hall. Paleontology of
New York. 1879. v. 5, pt 2, p. 306, pl. 88, fig. 2.
Portage (Naples) beds Watkins, Seneca co. N. Y.
Pickett collection
- Orthoceras typum* see *Orthoceras aptum*
Orthoceras typum? see *Orthoceras bebryx*

Orthoceras varum Hall

- 4046 $\frac{12417}{1}$ TYPE *Orthoceras varum* Hall. Paleontology of
New York. 1879. v. 5, pt 2, p. 259, pl. 79, fig. 2.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 4047 $\frac{12417}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 79, fig. 4.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase
- 4048 $\frac{12417}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 112, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras vastator Hall

- 4049 $\frac{12418}{1}$ TYPE *Orthoceras (obliquum) vastator* Hall.
Paleontology of New York. 1879. v. 5, pt 2, p. 243,
pl. 78, fig. 1, 2.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4050 $\frac{12418}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 78, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

On slab with type of pl. 78, fig. 4.

- 4051 $\frac{12418}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 78, fig. 4.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

On slab with type of pl. 78, fig. 3.

Orthoceras (obliquum) vastator see
Orthoceras vastator

Orthoceras zeus Hall

- 4052 $\frac{12419}{1}$ TYPE *Orthoceras zeus* Hall. Paleontology of New
York. 1879. v. 5, pt 2, p. 235, pl. 75, fig. 1, 3.

Schoharie grit

The Helderberg, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 4053 $\frac{12419}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 75, fig. 2.

Schoharie grit

Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

Orthoceratites multicameratus see *Ortho-*
ceras multicameratum

PARODICERAS Hyatt**Parodiceras discoideum** Hall (sp.)

- 4054 $\frac{12440}{1}$ HYPOTYPE *Goniatites discoideus* Hall. 13th
annual report of the New York state cabinet of natural
history. 1860. p. 97.

Hall. Illustrations of Devonian fossils. 1876. Cephal-
opoda, pl. 71, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 71, fig. 1.

Tully limestone

Smith's ledge, Otisco N. Y.

4055 $\frac{12440}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 71, fig. 4; pl. 74, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 71, fig. 4; pl. 74, fig. 3.

Marcellus shale (Agoniatite limestone)

Manlius, Onondaga co. N. Y.

4056 $\frac{12440}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 71, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 71, fig. 5, 6.

Marcellus shale (Agoniatite limestone) Manlius N. Y.

4057 $\frac{12440}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 71, fig. 8, 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 71, fig. 8, 9.

Marcellus shale (Agoniatite limestone) Manlius N. Y.

PHRAGMOCERAS Broderip (Sowerby)

Phragmoceras? *see* Phragmoceras corallophilum

Phragmoceras corallophilum Clarke

4058 $\frac{12460}{1}$ TYPE Phragmoceras? Hall. Paleontology of New
York. 1852. 2:351, pl. 78, fig. 3a.

Phragmoceras corallophilum Clarke. 12th
annual report of the New York state geologist. 1893. p. 90.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

4059 $\frac{12460}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2,
pl. 78, fig. 3b.

Clarke. 12th annual report of the New York state
geologist. 1893. p. 90.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

Phragmoceras? expansum Hall

4060 $\frac{12461}{1}$ TYPE Oncoceras expansum Hall. Paleontology
of New York. 1852. 2:337, pl. 77A, fig. 2a, 2b.

Phragmoceras? expansum Hall. Paleontology
of New York. 1879. v. 5, pt 2, pl. 46, fig. 10, 11.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

Phragmoceras spinosum *see* *Gyroceras* (Cophinoceras) *spinosum*

Porcellia? rotatoria *see* *Anarcestes plebeiformis*

PROBELOCERAS Clarke

Proboloceras lutheri Clarke

4061 $\frac{12480}{1}$ HYPOTYPE *Goniatites lutheri* Clarke. United States geological survey bulletin 16. 1885. p. 50.

Proboloceras lutheri Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 1.

Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4062 $\frac{12480}{2}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 2.

Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4063 $\frac{12480}{3}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 4.

Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4064 $\frac{12480}{4}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 5.

Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4065 $\frac{12480}{5}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 6.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

4066 $\frac{12480}{6}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 7.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

4067 $\frac{12480}{7}$ PLASTOTYPE *Goniatites lutheri* Clarke. United States geological survey bulletin 16. 1885. pl. 2, fig. 8.

Proboloceras lutheri Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 8.

Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

- 4068 $\frac{12480}{8}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 9.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 4069 $\frac{12480}{9}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 10.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor
- 4070 $\frac{12480}{10}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 93, fig. 73.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor
- 4071 $\frac{12480}{11}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 93, fig. 74.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

Probeloceras (?) naplesense Clarke

- 4072 $\frac{12481}{1}$ TYPE *Probeloceras (?) naplesense* Clarke. 16th annual report of the New York state geologist. 1898. p. 105, pl. 7, fig. 18.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

SANDBERGEROCERAS Hyatt

Sandbergeroceras chemungense Vanuxem (sp.)

- 4073 $\frac{12500}{1}$ TYPE *Goniatites chemungensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 182, fig. 1.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 9; pl. 74, fig. 6.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 9; pl. 74, fig. 6.
Chemung beds Near Owego N. Y.
Geological survey collection

Sandbergeroceras chemungense var. *aequicostatum* Hall (sp.)

- 4074 $\frac{12501}{1}$ TYPE *Goniatites chemungensis* var. *aequicostatus* Hall. Description of new species of Goniatitidae. 1874. p. 3.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 69, fig. 10.

Chemung beds

Western New York

Sandbergeroceras syngonum Clarke

4075 $\frac{12502}{1}$ TYPE (?) (?) Sandbergeroceras syngonum Clarke.
16th annual report of the New York state geologist. 1898.
p. 106, pl. 6, fig. 23.

Portage (Naples) beds

Honeoye lake, N. Y.

J. M. Clarke, donor

4076 $\frac{12502}{2}$ PLASTOTYPE¹ Clarke. 16th annual report of the New York
state geologist. 1898. pl. 7, fig. 19.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke, donor

4077 $\frac{12502}{3}$ TYPE: PLASTOTYPE Goniatites chemungensis var.
Clarke. United States geological survey bulletin 16.
1885. p. 51.

Sandbergeroceras syngonum Clarke. 16th
annual report of the New York state geologist. 1898.
pl. 7, fig. 20

Portage (Naples) beds

Snyder gully, Naples N. Y.

J. M. Clarke, donor

4078 $\frac{12502}{4}$ TYPE Clarke. 16th annual report of the New York state
geologist. 1898. p. 107, fig. 79-81.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke, donor

THORACOCERAS Eichwald

Thoracoceras wilsoni Clarke

4079 $\frac{12520}{1}$ TYPE: PLASTOTYPE Thoracoceras wilsoni Clarke.
New York state museum bulletin 49. 1901. p. 126, pl. 8,
fig. 1-5.

Marcellus shale (Agoniatite limestone)

Manlius N. Y.

J. D. Wilson, donor

4080 $\frac{12520}{2}$ PLASTOTYPE Clarke. New York state museum bulletin 49.
1901. pl. 8, fig. 6.

Marcellus shale (Agoniatite limestone)

Manlius N. Y.

J. D. Wilson, donor

¹ Type unavoidably destroyed in taking squeeze.

TORNOCERAS Hyatt

Tornoceras bicostatum Hall (sp.)

- 4081 $\frac{12540}{1}$ HYPOPLASTOTYPE¹ *Goniatites bicostatus* Hall.
Geology of New York; report on the 4th district. 1843.
p. 246.
Tornoceras bicostatum Clarke. 16th annual
report of the New York state geologist. 1898. pl. 8, fig. 4.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 4082 $\frac{12540}{2}$ HYPOPLASTOTYPE¹ Clarke. 16th annual report of the New
York state geologist. 1898. pl. 8, fig. 5.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 4083 $\frac{12540}{3}$ HYPOPLASTOTYPE¹ Clarke. 16th annual report of the New
York state geologist. 1898. pl. 8, fig. 6.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 4084 $\frac{12540}{4}$ HYPOPLASTOTYPE¹ Clarke. 16th annual report of the New
York state geologist. 1898. pl. 8, fig. 7.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 4085 $\frac{12540}{5}$ HYPOPLASTOTYPE¹ Clarke. 16th annual report of the New
York state geologist. 1898. pl. 8, fig. 8.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 4086 $\frac{12540}{6}$ HYPOPLASTOTYPE¹ Clarke. 16th annual report of the New
York state geologist. 1898. pl. 8, fig. 9.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 4087 $\frac{12540}{7}$ HYPOPLASTOTYPE¹ Clarke. 16th annual report of the New
York state geologist. 1898. pl. 8, fig. 10, 11.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor
- 4088 $\frac{12540}{8}$ HYPOPLASTOTYPE¹ Clarke. 16th annual report of the New
York state geologist. 1898. pl. 8, fig. 12.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

¹ Hypotype destroyed in making squeeze.

- 4089 $\frac{12540}{9}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 13.
Portage (Naples) beds Naples, Ontario co. N. Y.
J. M. Clarke, donor

Tornoceras edwin-halli Clarke

- 4090 $\frac{12541}{1}$ TYPE *Tornoceras edwin-halli* Clarke. 16th annual report of the New York state geologist. 1898. p. 111, fig. 85.
Upper Chemung beds Nile, Allegany co. N. Y.
M. Sheehy and J. Van Deloo, coll. 1893

Tornoceras peracutum Hall

- 4091 $\frac{12542}{1}$ TYPE *Goniatites peracutus* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 8; pl. 74, fig. 13.
Goniatites peracutus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 463, pl. 69, fig. 8; pl. 74, fig. 13.
Tornoceras peracutum Clarke. 16th annual report of the New York state geologist. 1898. p. 118, fig. 96.

Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Tornoceras rhysum Clarke

- 4092 $\frac{12543}{1}$ TYPE: PLASTOTYPE *Tornoceras rhysum* Clarke. 16th annual report of the New York state geologist. 1898. p. 121, fig. 100; pl. 8, fig. 14.
Portage (Naples) beds Java, Wyoming co. N. Y.
J. M. Clarke, donor

Tornoceras uniangulare Conrad (sp.)

- 4093 $\frac{12544}{1}$ HYPOTYPE *Goniatites uniangularis* Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:268.
Goniatites bicostatus Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 72, fig. 6, 7.
Goniatites uniangularis Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 72, fig. 6, 7.
Portage (Naples) beds Mount Morris, Livingston co. N. Y.
Geological survey collection

4094 $\frac{12544}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), pl. 127, fig. 10.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

4095 $\frac{12544}{3}$ HYPOTYPE *Tornoceras uniangulare* Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 15.

Portage (Naples) beds Honeoye lake, N. Y.

J. M. Clarke, donor

4096 $\frac{12544}{4}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 16.

Portage (Naples) beds Naples N. Y.

J. M. Clarke, donor

4097 $\frac{12544}{5}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 117, fig. 95.

Portage (Naples) beds Naples N. Y.

J. M. Clarke, donor

***Tornoceras uniangulare* var. *compressum* Clarke**

4098 $\frac{12545}{1}$ TYPE *Tornoceras uniangulare* var. *compressum* Clarke. 16th annual report of the New York state geologist. 1898. p. 116, pl. 8, fig. 18.

Genesee shale (Styliola limestone)

Canandaigua lake, N. Y.

J. M. Clarke, donor

***Tornoceras uniangulare* var. *obesum* Clarke**

4099 $\frac{12546}{1}$ TYPE *Tornoceras uniangulare* var. *obesum* Clarke. 16th annual report of the New York state geologist. 1898. p. 116, pl. 8, fig. 17.

Portage (Naples) beds Naples N. Y.

J. M. Clarke, donor

TROCHOCERAS Barrande

***Trochoceras barrandei* Hall**

4100 $\frac{12560}{1}$ TYPE *Trochoceras barrandei* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 398, pl. 111, fig. 8.

Schoharie grit Near Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

4101 $\frac{12560}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 9.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

- 4102 $\frac{12560}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 10.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Trochoceras biton Hall

- 4103 $\frac{12561}{1}$ TYPE Trochoceras biton Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 395, pl. 111, fig. 7.

Schoharie grit

Clarksville, Albany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

Trochoceras clio see Trochoceras (Sphyradoceras) clio

Trochoceras clio see Trochoceras (Sphyradoceras) discoideum

Trochoceras (Sphyradoceras) clio Hall

- 4104 $\frac{12562}{1}$ HYPOTYPE Trochoceras clio Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 108.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4105 $\frac{12562}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 1, 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 2, 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4106 $\frac{12562}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 4.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4107 $\frac{12562}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4108 $\frac{12562}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 6.

Schoharie grit

Clarksville, Albany co. N. Y.

Trochoceras discoideum see *Trochoceras*
(*Sphyradoceras*) *discoideum*

***Trochoceras* (*Sphyradoceras*) *discoideum* Hall**

4109 $\frac{12563}{1}$ TYPE *Trochoceras discoideum* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 36.

Trochoceras clio Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 6.

Trochoceras discoideum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 8.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

***Trochoceras eugenium* Hall**

4110 $\frac{12564}{1}$ HYPOTYPE *Trochoceras eugenium* Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 108.

Trochoceras sp.? Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 58, fig. 3.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

4111 $\frac{12564}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 11.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

***Trochoceras expansum* Hall**

4112 $\frac{12565}{1}$ TYPE *Trochoceras expansum* Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 402, pl. 111, fig. 5.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

Trochoceras gebhardi Hall

4113 $\frac{12566}{1}$ TYPE *Trochoceras gebhardi* Hall. Paleontology of New York. 1852. 2:335, pl. 77, fig. 2.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

4114 $\frac{12566}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2 pl. 77A, fig. 1b.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

Trochoceras obliquatum Hall

4115 $\frac{12567}{1}$ TYPE *Trochoceras obliquatum* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, explanation of pl. 48.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 401, pl. 111, fig. 1, 2.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

Trochoceras orion Hall

4116 $\frac{12568}{1}$ TYPE *Trochoceras orion* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 397, pl. 58, fig. 2.

Schoharie grit Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

Trochoceras pandion Hall

4117 $\frac{12569}{1}$ TYPE *Trochoceras pandion* Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 400, pl. 58, fig. 7.

Schoharie grit Schoharie county, N. Y.

J. Gebhard purchase

4118 $\frac{12569}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 8.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 58, fig. 8.

Schoharie grit Schoharie county, N. Y.

J. Gebhard purchase

- 4119 $\frac{12569}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Cephalopoda, pl. 48, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2,
pl. 58, fig. 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4120 $\frac{12569}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5,
pt 2, pl. 111, fig. 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Trochoceras? (Gonioceras?) pandum *see*
Eudoceras pandum

Trochoceras turbinatum Hall

- 4121 $\frac{12570}{1}$ TYPE Trochoceras turbinatum Hall. Paleon-
tology of New York. 1852. 2: 336, pl. 77, fig. 1.

Coralline (Cobleskill) limestone

Schoharie N. Y.

J. Gebhard purchase

TRICHOLITES Conrad

Trocholites ammonius (Vanuxem) Hall

- 4122 $\frac{12580}{1}$ TYPE Trocholithus, Utica trocholite Vanuxem. Ge-
ology of New York; report on the 3d district. 1842.
p. 57, fig. 3.

Trocholites ammonius Hall. Paleontology of
New York. 1847. 1: 309, pl. 84, fig. 2a, 2b.

Utica shale

Canajoharie creek, Montgomery co. N. Y.

Geological survey collection

- 4123 $\frac{12580}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1,
pl. 84, fig. 2c.

Utica shale

East Canada creek, Herkimer co. N. Y.

Geological survey collection

Trocholites undatus (Conrad) Emmons

- 4124 $\frac{12581}{1}$ PLASTOTYPE Inachus undatus (Conrad in mss)
Emmons. Geology of New York; report on the 2d dis-
trict. 1842. p. 394, fig. 104.

Lituities undatus Hall. Paleontology of New
York. 1847. v. 1, pl. 13, fig. 1.

Black river limestone

Watertown N. Y.

Albany Institute, donor

- 4125 $\frac{12581}{2}$ Hall. Paleontology of New York. 1847. v. 1, pl. 13,
fig. 1a, 1b.
Black river limestone Watertown N. Y.
Albany Institute, donor
Trocholithus, Utica trocholite *see* Trocholites
ammonius

VAGINOCERAS Hyatt

Vaginoceras longissimum Hall (sp.)

- 4126 $\frac{12600}{1}$ TYPE Endoceras longissimum Hall. Paleon-
tology of New York. 1847. 1:59, pl. 18, fig. 1, 1a.
Black river limestone Watertown N. Y.
Albany Institute, donor

CRUSTACEA

- Acidaspis sp. *see* Ceratocephala sp.
Acidaspis sp. n.? *see* Lichas (Ceratolichas) dracon
Acidaspis sp. n.? *see* Lichas (Ceratolichas) gryps
Acidaspis callicera *see* Ceratocephala (Odonto-
pleura) callicera
Acidaspis (Terataspis) eriopis *see* Lichas
(Arges) eriopis
Acidaspis (Terataspis) eriopis *see* Lichas
(Arges) hispidus
Acidaspis (Terataspis) grandis *see* Lichas
(Terataspis) grandis
Acidaspis hamata *see* Ceratocephala (Dicranurus)
hamata
Acidaspis romingeri *see* Ceratocephala (Ancyro-
pyge) romingeri
Acidaspis (Ancyropyge) romingeri *see*
Ceratocephala (Ancyropyge) romingeri
Acidaspis tuberculatus *see* Ceratocephala
(Acidaspis) tuberculata

AMPYX Dalman

- Ampyx hastatus *see* Ampyx (Lonchodomas)
hastatus

Ampyx (Lonchodomas) hastatus Ruedemann

- 4127 $\frac{13000}{1}$ TYPE *Ampyx hastatus* Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 1.
Ampyx (Lonchodomas) hastatus Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 1.
 Trenton conglomerate
 Rysedorph hill, Rensselaer co. N. Y.
 R. Ruedemann, coll. 1900
- 4128 $\frac{13000}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 2-4.
 Trenton conglomerate
 Rysedorph hill, N. Y.
 R. Ruedemann, coll. 1900
- 4129 $\frac{13000}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 5.
 Trenton conglomerate
 Rysedorph hill, N. Y.
 R. Ruedemann, coll. 1900
- 4130 $\frac{13000}{4}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 6.
 Trenton conglomerate
 Rysedorph hill, N. Y.
 R. Ruedemann, coll. 1900
- 4131 $\frac{13000}{5}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 7.
 Trenton conglomerate
 Rysedorph hill, N. Y.
 R. Ruedemann, coll. 1900
- 4132 $\frac{13000}{6}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 8.
 Trenton conglomerate
 Rysedorph hill, N. Y.
 R. Ruedemann, coll. 1900
- 4133 $\frac{13000}{7}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 9.
 Trenton conglomerate
 Rysedorph hill, N. Y.
 R. Ruedemann, coll. 1900
- 4134 $\frac{13000}{8}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 10.
 Trenton conglomerate
 Rysedorph hill, N. Y.
 R. Ruedemann, coll. 1900

- 4135 $\frac{13000}{9}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 3, fig. 30.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

APARCHITES Jones

Aparchites minutissimus Hall (sp.) *var. robustus* Ruedemann

- 4136 $\frac{13020}{1}$ TYPE Aparchites minutissimus Hall var.
robustus Ruedemann. New York state museum
bulletin 49. 1901. p. 74, pl. 7, fig. 6-8.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4137 $\frac{13020}{2}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 7, fig. 9-11.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Arges consanguineus see Lichas (*Arges*) consanguineus

ARISTOZOE Barrande

Aristozoe troyensis Ford

- 4138 $\frac{13040}{1}$ TYPE Leperditia troyensis Ford. American journal of science and arts, ser. 3. 1873. 6:138 (not figured).
Walcott. United States geological survey bulletin 30. 1886. pl. 16, fig. 5.
Aristozoe troyensis Walcott. 10th annual report of the United States geological survey. 1890. pl. 80, fig. 2.
Lower Cambrian Troy N. Y.
S. W. Ford purchase

Asaphus ? *acanthopleurus* see Dalmanites (Coronura) myrmecophorus

Asaphus corycaeus see Proëtus corycaeus

Asaphus diurus see Dalmanites (Coronura) diurus

Asaphus micrurus see Dalmanites micrurus

Asaphus myrmecophorus see Dalmanites (Coronura) myrmecophorus

Asaphus nasutus *see* *Dalmanites* (*Probolium*)
nasutus

Asaphus ? *obtusus* *see* *Isotelus obtusus*

Asaphus pleuroptyx *see* *Dalmanites* (*Odontochile*) *limulurus*

Asaphus pleuroptyx *see* *Dalmanites micrurus*

Asaphus pleuroptyx *see* *Dalmanites* (*Odontochile*) *pleuroptyx*

Asaphus selenurus *see* *Dalmanites* (*Synphoria* [*Odontopleura*]) *selenurus*

Asaphus ? *trentonensis* *see* *Platymetopus*
trentonensis

Asmusia membranacea *see* *Estheria membra-*
nacea

Atops trilineatus *see* *Conocoryphe trilineata*

BATHYURUS Billings

***Bathyurus extans* Hall (sp.)**

4139 $\frac{13060}{1}$ TYPE *Asaphus* ? *extans* Hall. *Paleontology of*
New York. 1847. 1:228, pl. 60, fig. 2a, 2b.

Lowville limestone. Mohawk valley, N. Y.

BEYRICHIA McCoy

***Beyrichia* sp.? Clarke**

4140 $\frac{13080}{1}$ HYPOTYPE *Beyrichia* sp.? Clarke. *New York state*
museum memoir 3. 1900. pl. 9, fig. 14, 15.

Oriskanian Becraft mountain, Hudson N. Y.

Beyrichia ciliata *see* *Ctenobolbina ciliata*

***Beyrichia clarkii* Jones**

4141 $\frac{13081}{1}$ TYPE *Beyrichia clarkii* Jones. *Quarterly journal of*
the Geological society of London. 1890. 46:17, fig. 2.

Manlius limestone. Herkimer county, N. Y.
J. Gebhard purchase

***Beyrichia kloedeni* McCoy *var.* Jones**

4142 $\frac{13082}{1}$ TYPE *Beyrichia kloedeni* *var.* Jones. *Quarterly*
journal of the Geological society of London. 1890.
46:538, pl. 21, fig. 1a, 1b.

Onondaga limestone (drift)

Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

Beyrichia kolmodini Jones

- 4143 $\frac{13083}{1}$ TYPE *Beyrichia kolmodini* Jones. Quarterly journal of the Geological society of London. 1890. 46: 538, pl. 20, fig. 6.

Hamilton beds

Clark county, Ind.

J. M. Clarke purchase

Beyrichia oculina Hall

- 4144 $\frac{13084}{1}$ TYPE *Beyrichia oculina* Hall. Paleontology of New York. 1859. 3: 378 (not figured).

Jones. Quarterly journal of the Geological society of London. 1890. v. 46, pl. 1, fig. 4.

Coeymans limestone

Schoharie county, N. Y.

J. Gebhard purchase

Beyrichia parasitica Hall

- 4145 $\frac{13085}{1}$ TYPE *Leperditia parasitica* Hall. Paleontology of New York. 1859. 3: 376 (not figured).

Beyrichia parasitica Jones. Quarterly journal of the Geological society of London. 1890. 46: 17, fig. 1.

Coeymans limestone

Schoharie N. Y.

J. Gebhard purchase

On type of *Orthoceras desideratum*, Pal. N. Y. v. 3, pl. 71, fig. 4.

Beyrichia subquadrata Jones

- 4146 $\frac{13086}{1}$ TYPE: PLASTOTYPE *Beyrichia subquadrata* Jones. Quarterly journal of the Geological society of London. 1890. 46: 537, pl. 20, fig. 4.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

BOLLIA Jones and Holl

Bollia bilobata Jones

- 4147 $\frac{13100}{1}$ TYPE *Bollia bilobata* Jones. Quarterly journal of the Geological society of London. 1890. 46: 540, pl. 20, fig. 12.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

Bollia cornucopiae Ruedemann

- 4148 $\frac{13101}{1}$ TYPE *Bollia cornucopiae* Ruedemann. New York state museum bulletin 49. 1901. p. 82, pl. 6, fig. 1, 2.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900.

BRONTEUS Goldfuss

Bronteus barrandii Hall

- 4149 $\frac{13120}{1}$ TYPE *Bronteus barrandii* Hall. Paleontology of New York. 1859. 3:350, pl. 73, fig. 1-4.
Coeymans limestone Schoharie N. Y.

Bronteus lunatus Billings

- 4150 $\frac{13121}{1}$ HYPOTYPE *Bronteus lunatus* Billings. Geological survey of Canada; report of progress. 1853-56. p. 338.
Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 10.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

Bronteus senescens Clarke

- 4151 $\frac{13122}{1}$ TYPE *Bronteus senescens* Clarke. 8th annual report of the New York state geologist. 1889. p. 57, fig. 1.
Chemung beds Prattsburg, Steuben co. N. Y.
J. M. Clarke, donor
- 4152 $\frac{13122}{2}$ TYPE Clarke. 15th annual report of the New York state geologist. 1897. 1:734, fig. 3.
Chemung beds Avoca, Steuben co. N. Y.
C. J. Sarle, coll.
- 4153 $\frac{13122}{3}$ TYPE: PLASTOTYPE Clarke. 15th annual report of the New York state geologist. 1897. 1:734, fig. 4.
Chemung beds Avoca N. Y.
C. J. Sarle, coll.

Bronteus tullius see *Bronteus* (*Thysanopeltis*)
tullius

Bronteus (Thysanopeltis) tullius Hall & Clarke

- 4154 $\frac{13123}{1}$ TYPE *Bronteus tullius* Hall & Clarke. Paleontology of New York. 1888. 7:72, pl. 8A, fig. 34, 35.
Tully limestone Kingsley's hill, near Otisco, N. Y.
S. G. Williams, donor
- 4155 $\frac{13123}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 36.
Tully limestone Borodino, Onondaga co. N. Y.
S. G. Williams, donor

BUMASTUS Murchison

Bumastus ioxus Hall

- 4156 $\frac{13140}{1}$ HYPOTYPE *Illaenus ioxus* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 378.

Illaenus (*Bumastus*) *ioxus* Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 13.
Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 4157 $\frac{13140}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 14.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Bumastus trentonensis Emmons (sp.)

- 4158 $\frac{13141}{1}$ HYPOTYPE *Illaenus trentonensis* Emmons. Geology of New York; report on the 2d district. 1842. p. 390.

Bumastus trentonensis Clarke. Geological survey of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 720, fig. 32.

Trenton limestone

Trenton Falls N. Y.

W. P. Rust purchase

BYTHOCYPRIS Brady

Bythocypris cylindrica Hall (sp.)

- 4159 $\frac{13160}{1}$ HYPOTYPE *Leperditia* (*Isochilina*) *cylindrica* Hall. 24th annual report of the New York state cabinet of natural history. 1872. p. 231.

Bythocypris cylindrica Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 26.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

- 4160 $\frac{13160}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 27.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4161 $\frac{13160}{3}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 28.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Calymene anchiops *see* *Dalmanites* (Odontochile) *anchiops*

Calymene blumenbachi *see* *Calymmene senaria*

Calymene bufo *see* *Phacops bufo* (= *rana*)

Calymene bufo var. *rana* *see* *Phacops rana*

CALYMMENE Brongniart

Calymmene callicephala Green

4162 $\frac{13180}{1}$ PLASTOTYPE *Calymene callicephala* Green. Monograph of the tribolites of North America. 1832. p. 30, cast no. 2.

Calymmene callicephala Clarke. Geological survey of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 699, fig. 22.

Lorraine beds

Labeled as "found in Hampshire, Virginia."

Albany Institute, donor

Calymmene camerata Conrad

4163 $\frac{13181}{1}$ TYPE *Calymene camerata* Conrad. Journal of the Academy of Natural Sciences of Philadelphia. 1842. 8:278 (not figured).

Hall. Paleontology of New York. 1852. v. 2, pl. 78, fig. 1a.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

4164 $\frac{13181}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 78, fig. 1b.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

4165 $\frac{13181}{3}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 78, fig. 1c, 1e.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Calymene crassimarginatus *see* *Proëtus crassimarginatus*

Calymene macrophthalmus *see* *Phacops rana*

Calymene marginalis *see* *Proëtus rowi*

Calymene? *microps* *see* *Dalmanites* (*Cryphaeus*) *boothi*

Calymmene (?) multicosta Hall

- 4166 $\frac{13182}{1}$ TYPE *Calymene multicosta* Hall. Paleontology of New York. 1847. 1:228, pl. 60, fig. 3.
Lowville limestone Isle La Motte, Lake Champlain

Calymmene platys Green

- 4167 $\frac{13183}{1}$ HYPOTYPE *Calymene platys* Green. Monograph of the trilobites of North America. 1832. p. 32.
Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 3.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 1.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

- 4168 $\frac{13183}{2}$ TYPE: PLASTOTYPE Green. Monograph of the trilobites of North America. 1832. p. 32, casts 4, 5.
Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 2.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 2.
Schoharie grit The Helderberg, Albany co. N. Y.
T. R. Beck, coll.; Albany Institute, donor

- 4169 $\frac{13183}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 4, 7.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 3, 7.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

- 4170 $\frac{13183}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 5.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 4.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

- 4171 $\frac{13183}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 6.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 5.
Schoharie grit Schoharie county, N. Y.
C. Van Deloo, coll. 1862

4172 $\frac{13183}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 1, fig. 1.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 1, fig. 6.

Schoharie grit Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

4173 $\frac{13183}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 1, fig. 9.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 1, fig. 8.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

4174 $\frac{13183}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 1, fig. 8.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 1, fig. 9.

Schoharie grit Schoharie N. Y.

Calymene rowi see *Proëtus rowi*

***Calymmene senaria* Conrad**

4175 $\frac{13184}{1}$ HYPOPLASTOTYPE *Calymene blumenbachi*
(Brongniart) Green. Monograph of the trilobites of North
America. 1832. p. 28, cast no. 1.

Calymene senaria Conrad. Annual report of
the New York state geological survey. 1841. p. 49.

Trenton limestone Trenton Falls N. Y.

Albany Institute, donor

4176 $\frac{13184}{2}$ HYPOTYPE Clarke. Geological survey of Minnesota.
1897. v. 3, pt 2 of the final report; Paleontology, p. 700,
fig. 3.

Trenton limestone Trenton Falls N. Y.

CERATIOCARIS McCoy

Ceratiocaris armatus see *Echinocaris punctata*

***Ceratiocaris* (?) *beecheri* Clarke**

4177 $\frac{13200}{1}$ PLASTOTYPE *Ceratiocaris beecheri* Clarke. United
States geological survey bulletin 16. 1885. p. 44, pl. 2,
fig. 1.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 31, fig. 3.

Portage (Naples) beds Son Yea, Livingston co. N. Y.

J. M. Clarke purchase

Ceratiocaris longicauda Hall

- 4178 $\frac{13201}{1}$ TYPE *Ceratiocaris longicaudus* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 73, pl. 1, fig. 7.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 1.

Genesee shale Bristol Center, Ontario co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862.

Ceratiocaris longicaudus see *Bactrites aciculum* under *Cephalopoda*

Ceratiocaris (Limnocaris) praecedens Clarke

- 4179 $\frac{13202}{1}$ TYPE *Ceratiocaris (Limnocaris) praecedens* Clarke. Annual report of the New York state paleontologist. 1901. p. 92, pl. 3, fig. 5.

Salina beds Erie canal, 2 miles northwest of Pittsford, Monroe co. N. Y.

C. J. Sarle purchase

- 4180 $\frac{13202}{2}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 6.

Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.

C. J. Sarle purchase

- 4181 $\frac{13202}{3}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 7.

Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.

C. J. Sarle purchase

- 4182 $\frac{13202}{4}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 8.

Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.

C. J. Sarle purchase

- 4183 $\frac{13202}{5}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 9.

Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.

C. J. Sarle purchase

- 4184 $\frac{13202}{6}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 10.

Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.

C. J. Sarle purchase

Ceratiocaris ? *punctatus* *see* *Echinocaris punctata*

Ceratiocaris (*Aristozoe*) *punctatus* *see* *Echinocaris punctata*

CERATOCEPHALA Warder

Ceratocephala sp.

- 4185 $\frac{13220}{1}$ TYPE *Acidaspis* sp., Hall & Clarke. *Paleontology of New York*. 1888. 7:71, pl. 16B, fig. 14.
Onondaga limestone (chert) Cayuga Ont.

Ceratocephala (Odontopleura) callicera Hall & Clarke

- 4186 $\frac{13221}{1}$ PLASTOTYPE *Acidaspis callicera* Hall & Clarke. *Paleontology of New York*. 1888. 7:69, pl. 16B, fig. 1, 2.
Onondaga limestone Camillus, Onondaga co. N. Y.
- 4187 $\frac{13221}{2}$ TYPE: PLASTOTYPE Hall & Clarke. *Paleontology of New York*. 1888. v. 7, pl. 16B, fig. 3-7.
Onondaga limestone Cayuga Ont.

C. D. Walcott, coll. 1878

- 4188 $\frac{13221}{3}$ TYPE Hall & Clarke. *Paleontology of New York*. 1888. v. 7, pl. 16B, fig. 9
Onondaga limestone (drift) Canandaigua N. Y.

J. M. Clarke purchase

- 4189 $\frac{13221}{4}$ TYPE Hall & Clarke. *Paleontology of New York*. 1888. v. 7, pl. 16B, fig. 13.
Schoharie grit Near Clarksville, Albany co. N. Y.
J. M. Clarke purchase

Ceratocephala (Dicranurus) hamata Conrad

- 4190 $\frac{13222}{1}$ HYPOTYPE *Dicranurus hamatus* Conrad. *Annual report of the New York state geological survey*. 1841. p. 39.

Acidaspis hamata Hall. *Paleontology of New York*. 1859. v. 3, pl. 79, fig. 16.

New Scotland beds Albany (or Schoharie) county, N. Y.

- 4191 $\frac{13222}{2}$ HYPOTYPE Hall. *Paleontology of New York*. 1859. v. 3, pl. 79, fig. 17.

New Scotland beds Albany (or Schoharie) county, N. Y.

- 4192 $\frac{13222}{3}$ HYPOTYPE Hall. *Paleontology of New York*. 1859. v. 3, pl. 79, fig. 19.

New Scotland beds Albany (or Schoharie) county, N. Y.

- 4193 $\frac{13222}{4}$ HYPOTYPE Hall. *Paleontology of New York*. 1859. v. 3, pl. 79, fig. 19a.

New Scotland beds Albany (or Schoharie) county, N. Y.

- 4194 $\frac{13222}{5}$ HYPOTYPE *Ceratocephala* (*Dicranurus*) *hamata* Clarke. 10th annual report of the New York state geologist. 1891. pl. 1, fig. 6.

New Scotland beds Near Clarksville, Albany co. N. Y.
J. M. Clarke purchase

***Ceratocephala* (*Ancyropyge*) *romingeri* Hall & Clarke**

- 4195 $\frac{13223}{1}$ PLASTOTYPE *Acidaspis romingeri* Hall & Clarke. Paleontology of New York. 1888. 7:71, pl. 16B, fig. 15-18.

Acidaspis (*Ancyropyge*) *romingeri* Clarke. 10th annual report of the New York state geologist. 1891. pl. 2, fig. 3, 4.

Hamilton beds Little Traverse bay, Mich.

***Ceratocephala* (*Acidaspis*) *tuberculata* Conrad**

- 4196 $\frac{13224}{1}$ HYPOTYPE *Acidaspis tuberculatus* Conrad. Annual report of the New York state geological survey. 1840. p. 205.

Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 1.

New Scotland beds Albany (or Schoharie) county, N.Y.

- 4197 $\frac{13224}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 1a (counterpart of pl. 79, fig. 1).

New Scotland beds Albany (or Schoharie) county, N.Y.

- 4198 $\frac{13224}{3}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 3, 5.

New Scotland beds Albany (or Schoharie) county, N.Y.

- 4199 $\frac{13224}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 12.

New Scotland beds Albany (or Schoharie) county, N.Y.

- 4200 $\frac{13224}{5}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 14.

New Scotland beds Schoharie N. Y.

J. Gebhard purchase

- 4201 $\frac{13224}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 26.

Oriskanian Becraft mountain, Hudson N. Y.

CERAURUS Green

***Ceraurus*? Hall**

- 4202 $\frac{13240}{1}$ HYPOTYPE *Ceraurus* sp. indet. Hall. Paleontology of New York. 1847. 1:25, pl. 4bis, fig. 20.

Chazy limestone Chazy, Clinton co. N. Y.

Ceraurus pleurexanthemus Green

- 4203 $\frac{13241}{1}$ TYPE *Ceraurus pleurexanthemus* Green. Monograph of the trilobites of North America. 1832. p. 84, pl. 1, fig. 10; original of cast no. 33.

Trenton limestone

Newport, Herkimer co. N. Y.

Albany Institute, donor

CONOCORYPHE Corda**Conocoryphe trilineata** Emmons (sp.)

- 4204 $\frac{13260}{1}$ PLASTOTYPE *Atops trilineatus* Emmons. Taconic system. 1844. p. 20, fig. 8 (1st specimen).

Emmons. Agriculture of New York. 1846. 1:64, fig. 8 (1st specimen).

Ptychoparia trilineata Walcott. United States geological survey bulletin 30. 1886. pl. 27, fig. 1.

Conocoryphe trilineata Walcott. 10th annual report of the United States geological survey. 1886. pl. 95, fig. 5.

Lower Cambric

Reynold's Inn, Washington co. N. Y.

S. W. Ford purchase

- 4205 $\frac{13260}{2}$ HYPOTYPE Walcott. United States geological survey bulletin 30. 1886. pl. 27, fig. 1a (figure based on two specimens).

Lower Cambric

Troy N. Y.

S. W. Ford purchase

CORDANIA Clarke

Cordania sp. nov. *see* *Cordania becraftensis*

Cordania arenicola Hall & Clarke (sp.)

- 4206 $\frac{13280}{1}$ PLASTOTYPE *Phaëthonides arenicolus* Hall & Clarke. Paleontology of New York. 1888. 7:134, pl. 25, fig. 12.

Schoharie grit

Schoharie N. Y.

Cordania becraftensis Clarke

- 4207 $\frac{13281}{1}$ TYPE *Cordania* sp. nov. Clarke. American journal of science. 1892. 44:412.

Cordania hudsonica (in error) Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 17.

Oriskanian

Becraft mountain, Hudson N. Y.

- 4208 $\frac{13281}{2}$ TYPE: PLASTOTYPE *Cordania becraftensis* Clarke. New York state museum memoir 3. 1900. p. 22, pl. 2, fig. 19.

Oriskanian

Becraft mountain, Hudson N. Y.

4209 $\frac{13281}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 20.

Oriskanian Becraft mountain, Hudson N. Y.

4210 $\frac{13281}{4}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 21.

Oriskanian Becraft mountain, Hudson N. Y.

4211 $\frac{13281}{5}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 22.

Oriskanian Becraft mountain, Hudson N. Y.

4212 $\frac{13281}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 23.

Oriskanian Becraft mountain, Hudson N. Y.

Cordania cyclurus Hall & Clarke (sp.)

4213 $\frac{13282}{1}$ TYPE Phaëthonides cyclurus Hall & Clarke. Paleontology of New York. 1888. 7:137, pl. 24, fig. 26, 26a.

New Scotland beds Near Clarksville, Albany co. N. Y.

J. M. Clarke purchase

4214 $\frac{13282}{2}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 27.

New Scotland beds Near Clarksville N. Y.

J. M. Clarke purchase

4215 $\frac{13282}{3}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 25, fig. 11.

New Scotland beds Near Clarksville N. Y.

J. M. Clarke purchase

Cordania gemmaea Hall & Clarke (sp.)

4216 $\frac{13283}{1}$ TYPE Phaëthonides gemmaeus Hall & Clarke. Paleontology of New York. 1888. 7:136, pl. 24, fig. 32.

Hamilton beds Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

4217 $\frac{13283}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 33.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.

J. M. Clarke purchase

4218 $\frac{13283}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 34.

Hamilton beds Canandaigua lake, N. Y.

J. M. Clarke purchase

- 4219 $\frac{13283}{4}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 35.

Onondaga limestone

Canandaigua N. Y.

J. M. Clarke purchase

- 4220 $\frac{13283}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 36.

Onondaga limestone (chert in drift)

Canandaigua N. Y.

J. M. Clarke purchase

Cordania hudsonica Clarke

- 4221 $\frac{13284}{1}$ TYPE *Cordania hudsonica* Clarke. New York state museum memoir 3. 1900. p. 24, pl. 2, fig. 18.

Oriskanian

Becraft mountain, Hudson N. Y.

Cordania hudsonica (in error) *see* *Cordania becraftensis*

Cordania macrobius Billings (sp.)

- 4222 $\frac{13285}{1}$ HYPOTYPE *Proëtus macrobius* Billings. Proceedings of the Portland society of natural history. 1863. 1:123.

Phaëthonides macrobius Hall & Clarke.

Paleontology of New York. 1888. v. 7, pl. 24, fig. 24, 24a.

Helderbergian

Square lake, Me.

J. M. Clarke purchase

Cordania varicella Hall & Clarke (sp.)

- 4223 $\frac{13286}{1}$ TYPE *Phaëthonides varicella* Hall & Clarke. Paleontology of New York. 1888. 7:135, pl. 24, fig. 29, 29a.

Onondaga limestone

Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

- 4224 $\frac{13286}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 30, 30a.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

- 4225 $\frac{13286}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 31.

Onondaga limestone

Canandaigua N. Y.

J. M. Clarke purchase

On specimen with type of pl. 24, fig. 30, 30a.

Coronura diurus *see* *Dalmanites* (*Coronura*) *diurus*

Cryphaeus boothi *see* *Dalmanites* (*Cryphaeus*) *boothi*

Cryphaeus collitelus *see* *Dalmanites* (*Cryphaeus*) *boothi* *var. calliteles*

Cryptolithus tessellatus *see* *Trinucleus concentricus*

CTENOBOLBINA Ulrich

***Ctenobolbina ciliata* Emmons (sp.)**

4226 $\frac{13300}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Beyrichia ciliata* Emmons. American geology. 1855. p. 219.

Ctenobolbina ciliata Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 8, 9.

Upper Utica shale

Menands, Albany co. N. Y.

R. Ruedemann, coll. 1900

***Ctenobolbina ciliata* Emmons *var. cornuta* Ruedemann**

4227 $\frac{13301}{1}$ TYPE *Ctenobolbina ciliata* Emmons *var. cornuta* Ruedemann. New York state museum bulletin 42. 1901. p. 575, pl. 2, fig. 5.

Lower Utica shale

Mechanicville, Saratoga co. N. Y.

R. Ruedemann, coll. 1900

4228 $\frac{13301}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 6.

Lower Utica shale

Mechanicville N. Y.

R. Ruedemann, coll. 1900

4229 $\frac{13301}{3}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 7.

Upper Utica shale

Green Island, Albany co. N. Y.

R. Ruedemann, coll. 1900

***Ctenobolbina subrotunda* Ruedemann**

4230 $\frac{13302}{1}$ TYPE: PLASTOTYPE *Ctenobolbina subrotunda* Ruedemann. New York state museum bulletin 42. 1901. p. 576, pl. 2, fig. 1, 2.

Trenton shale

Port Schuyler, Albany co. N. Y.

R. Ruedemann, coll. 1899

4231 $\frac{13302}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 3, 4.

Trenton shale

Port Schuyler N. Y.

R. Ruedemann, coll. 1899

CYBELE Lovén

Cybele sp.

- 4232 $\frac{13320}{1}$ TYPE: PLASTOTYPE *Cybele* sp. Ruedemann. New York state museum bulletin 49. 1901. p. 66, pl. 4, fig. 12.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

On slab with type of *Cyrtospira attenuata*, New York state museum bulletin 49, pl. 2, fig. 8.

CYPHASPIS Burmeister

Cyphaspis coelebs Hall & Clarke

- 4233 $\frac{13340}{1}$ TYPE: PLASTOTYPE *Cyphaspis coelebs* Hall & Clarke. Paleontology of New York. 1888. 7:151, pl. 24, fig. 1.

Helderbergian

Schoharie, Schoharie co. N. Y.

J. Gebhard purchase

Cyphaspis craspedota Hall & Clarke

- 4234 $\frac{13341}{1}$ TYPE *Cyphaspis craspedota* Hall & Clarke. Paleontology of New York. 1888. 7:148, pl. 16, fig. 22.

Hamilton beds

Centerfield, Ontario co. N. Y.

J. M. Clarke purchase

On slab with types of *Dalmanites* (*Cryphaeus*) *boothi* var. *calliteles* and *Phacops rana*.

- 4235 $\frac{13341}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888 v. 7, pl. 24, fig. 15-17.

Hamilton beds

Centerfield N. Y.

J. M. Clarke purchase

On slab with type of *Dalmanites* (*Cryphaeus*) *boothi* var. *calliteles*, Pal. N. Y. v. 7, pl. 24, fig. 15.

- 4236 $\frac{13341}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 18, 19.

Hamilton beds

Centerfield N. Y.

J. M. Clarke purchase

- 4237 $\frac{13341}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 20.

Hamilton beds

Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

Cyphaspis diadema Hall & Clarke

- 4238 $\frac{13342}{1}$ TYPE: PLASTOTYPE *Cyphaspis diadema* Hall & Clarke. Paleontology of New York. 1888. 7:141, pl. 24, fig. 13, 13a.

Onondaga limestone

Near Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

Cyphaspis hudsonica Ruedemann

- 4239 $\frac{13343}{1}$ TYPE *Cyphaspis hudsonica* Ruedemann. New York state museum bulletin 49. 1901. p. 64, pl. 4, fig. 8, 9.
Upper Utica shale Green Island, Albany co. N. Y.

R. Ruedemann, coll. 1899

Cyphaspis hybrida Hall & Clarke

- 4240 $\frac{13344}{1}$ TYPE: PLASTOTYPE *Cyphaspis hybrida* Hall & Clarke. Paleontology of New York. 1888. 7:144, pl. 24, fig. 14.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

Cyphaspis matutina Ruedemann

- 4241 $\frac{13345}{1}$ TYPE *Cyphaspis matutina* Ruedemann. New York state museum bulletin 49. 1901. p. 62, pl. 4, fig. 5, 6.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

- 4242 $\frac{13345}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 7.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Cyphaspis minuscula Hall

- 4243 $\frac{13346}{1}$ TYPE *Phillipsia minuscula* Hall. Illustrations of Devonian fossils. 1876. Crustacea, explanation of pl. 20.

Cyphaspis minuscula Hall & Clarke. Paleontology of New York. 1888. 7:140, pl. 24, fig. 7.

Schoharie grit

Near Clarksville, Albany co. N. Y.

J. M. Clarke purchase

- 4244 $\frac{13346}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 24, fig. 8, 8a.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase
- 4245 $\frac{13346}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 24, fig. 9, 10.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase
- 4246 $\frac{13346}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 24, fig. 11.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase
On slab with *Phacops cristata* var. *pipa*, v. 7,
pl. 8A, fig. 9.
- 4247 $\frac{13346}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 24, fig. 12.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase
- 4248 $\frac{13346}{6}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 2, fig. 24.
Oriskanian Becraft mountain, Hudson N. Y.
- 4249 $\frac{13346}{7}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 2, fig. 25.
Oriskanian Becraft mountain, Hudson N. Y.

***Cyphaspis ornata* Hall (sp.)**

- 4250 $\frac{13347}{1}$ TYPE *Phillipsia?* (*Brachymetopus*) *ornata*
Hall. Illustrations of Devonian fossils. 1876. Crustacea,
explanation of pl. 21.
Cyphaspis ornata Hall & Clarke. Paleontology
of New York. 1888. 7:145, pl. 24, fig. 21, 21a.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

***Cyphaspis ornata* Hall var. *baccata* Hall & Clarke**

- 4251 $\frac{13348}{1}$ TYPE *Cyphaspis ornata* var. *baccata* Hall &
Clarke. Paleontology of New York. 1888. 7:146, pl. 24,
fig. 22, 22a.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

- 4252 $\frac{13348}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 24, fig. 23.
Hamilton beds Centerfield, Ontario co. N. Y.
J. M. Clarke purchase

Cyphaspis stephanophora Hall & Clarke

- 4253 $\frac{13349}{1}$ TYPE *Cyphaspis stephanophora* Hall & Clarke
Paleontology of New York. 1888. 7:142, pl. 24, fig. 2, 3-
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

- 4254 $\frac{13349}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 24, fig. 4.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

- 4255 $\frac{13349}{3}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New
York. 1888. v. 7, pl. 24, fig. 5.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

- 4256 $\frac{13349}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 24, fig. 6, 6a.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

Cytherina fabulites *see* *Leperditia fabulites*

Dalmania erina *see* *Dalmanites* (*Odontochile*)
erinus

Dalmania macrops *see* *Dalmanites* (*Coronura* ?)
macrops

Dalmania paitúna *see* *Dalmanites* (*Cryphaeus*)
paitúna

Dalmania pleuroptyx *see* *Dalmanites micrurus*

DALMANITES (Emmrich) Barrande

Dalmanites sp. nov. A. *see* *Dalmanites* (*Synphoria*)
stemmatus

Dalmanites sp. nov. A. *see* *Dalmanites* (*Synphoria*)
stemmatus var. convergens

Dalmanites sp. nov. B. *see* *Dalmanites bisignatus*

Dalmanites sp. n. ? *see* *Dalmanites* (*Synphoria*)
anchiops var. sobrinus

Dalmanites achates Billings

- 4257 $\frac{13360}{1}$ **HYPOTYPE** *Dalmanites achates* Billings. Canadian naturalist and geologist. 1860. 5: 63.

Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 726, 727, fig. 44.

Trenton limestone

Trenton Falls N. Y.

W. P. Rust purchase

Dalmanites aegeria *see* *Dalmanites* (*Odontocephalus*) *aegeria*

Dalmanites (*Odontocephalus*) **aegeria** Hall

- 4258 $\frac{13361}{1}$ **TYPE** *Dalmania aegeria* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861 [p. 57.

Dalmanites aegeria Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 5, 6.

Dalmanites (*Odontocephalus*) *aegeria* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 1, 2, 5.

Onondaga limestone

Williamsville, Erie co. N. Y.

J. M. Clarke, coll. 1885

- 4259 $\frac{13361}{2}$ **TYPE** Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 10.

Onondaga limestone

Near Clarence, Erie co. N. Y.

J. M. Clarke, coll. 1885

- 4260 $\frac{13361}{3}$ **TYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 11.

Onondaga limestone

Near Clarence N. Y.

J. M. Clarke, coll. 1885

Dalmanites anchiops *see* *Dalmanites* (*Synphoria*) *anchiops*

Dalmanites (*Chasmops*) *anchiops* *see* *Dalmanites* (*Synphoria*) *anchiops*

Dalmanites (*Synphoria*) **anchiops** Green (sp.)

- 4261 $\frac{13362}{1}$ **HYPOTYPE** *Calymene anchiops* Green. Monograph of the trilobites of North America. 1832. p. 35.

Dalmanites anchiops Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 3, 4.

Dalmanites (Chasmops) anchiops Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 2, 3.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4262 $\frac{13362}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 5, 6, 9.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 4-6.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

4263 $\frac{13362}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 12.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4264 $\frac{13362}{4}$ TYPE *Calymene anchiops* Green. Monograph of the trilobites of North America. 1832. p. 35, original of cast no. 7.

Dalmanites anchiops Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 12.

Dalmanites (Chasmops) anchiops Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 13.

Schoharie grit

Ulster county, N. Y.

4265 $\frac{13362}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 8.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 5.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4266 $\frac{13362}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 10, 11.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 8, 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4267 ¹³³⁶²/₇ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 10.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 4268 ¹³³⁶²/₈ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 13.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 12.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4269 ¹³³⁶²/₉ HYPOTYPE: HYPOPLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 14.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 13.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Dalmanites anchiops var. *armata* see *Dalmanites* (*Synphoria*) *anchiops* var. *armatus*

Dalmanites (*Chasmops*) *anchiops* var. *armata* see *Dalmanites* (*Synphoria*) *anchiops* var. *armatus*

***Dalmanites* (*Synphoria*) *anchiops* Green (sp.) var. *armatus* Hall**

- 4270 ¹³³⁶³/₁ TYPE *Dalmania anchiops* var. *armata* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 56.

Dalmanites anchiops var. *armatus* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 2.

Dalmanites (*Chasmops*) *anchiops* var. *armatus* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 7.

Schoharie grit

Schoharie county, N. Y.

J. Gebhard purchase

- 4271 ¹³³⁶³/₂ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 7.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 8.

Schoharie grit

Near Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

4272 $\frac{13363}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 8.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Dalmanites (*Chasmops*) *anchiops* var. *sobrinus* see *Dalmanites* (*Synphoria*) *anchiops* var. *sobrinus*

Dalmanites* (*Synphoria*) *anchiops* Green (sp.) var. *sobrinus
Hall & Clarke

4273 $\frac{13364}{1}$ TYPE *Dalmanites* sp. n.? Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 11.

Dalmanites (*Chasmops*) *anchiops* var. *sobrinus* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 11.

Schoharie grit

Schoharie N. Y.

C. Van Deloo, coll. 1862

Dalmanites *aspectans* see *Dalmanites* (*Coronura*) *diurus*

Dalmanites (*Coronura*) *aspectans* see *Dalmanites* (*Coronura*) *diurus*

***Dalmanites australis* Clarke**

4274 $\frac{13365}{1}$ PLASTOTYPE *Dalmanites australis* Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:29, pl. 2, fig. 11, 13.

Maecurú sandstone (Lower Devonian)

Rio Maecurú,
Pará, Brazil

Dalmanites bifida see *Dalmanites* (*Odontocephalus*) *bifidus*

***Dalmanites* (*Odontocephalus*) *bifidus* Hall**

4275 $\frac{13366}{1}$ TYPE *Dalmania bifida* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 63.

Dalmanites (*Odontocephalus*) *bifidus* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11 B, fig. 23.

Onondaga limestone

Lime Rock, near Leroy, Genesee co. N. Y.

J. M. Clarke, coll. 1886

- 4276 $\frac{13366}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 11B, fig. 24, 25.

Onondaga limestone Lime Rock, near Leroy N. Y.
J. M. Clarke, coll. 1886

Dalmanites bisignatus Clarke

- 4277 $\frac{13367}{1}$ TYPE: PLASTOTYPE *Dalmanites* sp. nov. B, Clarke.
American journal of science. 1892. 44:412.

Dalmanites bisignatus Clarke. New York
state museum memoir 3. 1900. pl. 2, fig. 6.

Oriskanian Becraft mountain, Hudson N. Y.

- 4278 $\frac{13367}{2}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 2, fig. 7.

Oriskanian Becraft mountain, Hudson N. Y.

- 4279 $\frac{13367}{3}$ TYPE Clarke. New York state museum memoir 3. 1900.
pl. 2, fig. 8.

Oriskanian Becraft mountain, Hudson N. Y.

Dalmanites boothi see *Dalmanites* (Cryphaeus)
boothi

Dalmanites boothii see *Dalmanites* (Cryphaeus)
boothi var. *calliteles*

Dalmanites (Cryphaeus) boothi Green (sp.)

- 4280 $\frac{13368}{1}$ PLASTOTYPE ? *Calymene microps* Green. Mono-
graph of the trilobites of North America. 1832. p. 34,
cast no. 6.

Said to be from a black limestone at Ripley O. Albany In-
stitute, donor.

- 4281 $\frac{13368}{2}$ HYPOTYPE *Cryphaeus boothi* Green. American
journal of science and arts. 1837. 32:343.

Dalmanites boothi Hall. Illustrations of
Devonian fossils. 1876. Crustacea, pl. 16, fig. 1, 2.

Dalmanites (Cryphaeus) boothi Hall &
Clarke. Paleontology of New York. 1888. v. 7, pl. 16,
fig. 1, 2.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 4282 $\frac{13368}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 5.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 16, fig. 3.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

- 4283 $\frac{13368}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 6.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 16, fig. 4.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860.
- 4284 $\frac{13368}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 14.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 16A, fig. 4.
Hamilton beds Near Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860.
- 4285 $\frac{13368}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 11.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 16A, fig. 5.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860.
- 4286 $\frac{13368}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 10.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 16A, fig. 6.
Hamilton beds Near Geneseo N. Y.
C. A. White and C. Van Deloo, coll. 1860.
- 4287 $\frac{13368}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 12.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 16A, fig. 7.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860.

Dalmanites (Cryphaeus) boothi Green (sp.) *var. calliteles* Green

- 4288 $\frac{13362}{1}$ HYPOTYPE *Cryphaeus collitelus* Green. American journal of science and arts. 1837. 32:346.
Dalmanites boothii Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 3, 4.
Dalmanites (Cryphaeus) boothi var. calliteles Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 9, 14, 15.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860.

- 4289 $\frac{13369}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 6; pl. 16A, fig. 13.
Hamilton beds Centerfield, Ontario co. N. Y.
J. M. Clarke purchase
- 4290 $\frac{13369}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 7; pl. 16A, fig. 14.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
- 4291 $\frac{13369}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 8.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
- 4292 $\frac{13369}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 10.
Hamilton beds Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase
- 4293 $\frac{13369}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 11, 12.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
- 4294 $\frac{13369}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 13.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase
- 4295 $\frac{13369}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 7.
Hall & Clarke. Paleontology of New York. 1888. v. 7,
pl. 16, fig. 16.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4296 $\frac{13369}{9}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 16, fig. 8.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 16, fig. 17.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4297 $\frac{13369}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 19-21.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

- 4298 $\frac{13369}{11}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 22.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase
On slab with hypotype of *Phacops rana* and *Cyphaspis eraspodota*.
- 4299 $\frac{13369}{12}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16A, fig. 10.
Tully limestone Goodwin's, Cayuga lake, N. Y.
S. G. Williams donor
- 4300 $\frac{13369}{13}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16A, fig. 11.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
- 4301 $\frac{13369}{14}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16A, fig. 15.
Hamilton beds Hopewell, Ontario co. N. Y.
J. M. Clarke purchase
- 4302 $\frac{13369}{15}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16A, fig. 16.
Hamilton beds Hopewell, Ontario co. N. Y.
J. M. Clarke purchase
- 4303 $\frac{13369}{16}$ **HYPOTYPE: 2 specimens** Hall & Clarke. Paleontology of
New York. 1888. v. 7, pl. 24, fig. 15.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
On slab with type of *Cyphaspis eraspodota* Pal.
N. Y. v. 7, pl. 24, fig. 15-17.
- 4304 $\frac{13369}{17}$ **HYPOTYPE** Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 22.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
Dalmanites calypso see *Dalmanites* (*Odontochile*) *calypso*
Dalmanites (*Chasmops*) *calypso* see *Dalmanites* (*Odontochile*) *calypso*
Dalmanites (Odontochile) calypso Hall
- 4305 $\frac{13370}{1}$ **PLASTOTYPE** *Dalmanites calypso* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 61.

Dalmanites (*Chasmops*) *calypso* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 19, 20.

Onondaga limestone

Sandusky O.

***Dalmanites* (*Cryphaeus*) *comis* Hall & Clarke**

4306 ¹³³⁷¹₁ TYPE *Dalmanites* (*Cryphaeus*) *comis* Hall & Clarke. Paleontology of New York. 1888. 7:41, pl. 16A, fig. 1.

Onondaga limestone (chert)

Walpole, Cayuga, Ont.

C. D. Walcott, coll. 1878

Dalmanites concinnus *see* *Dalmanites* (*Odontochile*) *concinnus*

Dalmanites (*Hausmannia*) *concinnus*
see *Dalmanites* (*Odontochile*) *concinnus*

***Dalmanites* (*Odontochile*) *concinnus* Hall**

4307 ¹³³⁷²₁ TYPE *Dalmanites concinnus* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 3.

Dalmanites (*Hausmannia*) *concinnus*
Hall & Clarke. Paleontology of New York. 1888. 7:30, pl. 11A, fig. 9.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4308 ¹³³⁷²₂ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 4, 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 10, 11.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Dalmanites (*Hausmannia*) *concinnus*
var. *serrula* *see* *Dalmanites* (*Cryphina*) *serrulus*

Dalmanites coronatus *see* *Dalmanites* (*Odontochile*?) *coronatus*?

***Dalmanites* (*Odontochile*?) *coronatus*? Hall**

4309 ¹³³⁷³₁ HYPOTYPE? *Dalmania coronata* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 58.

Dalmanites (*Odontocephalus*?) *coronatus*? Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 14.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

Dalmanites dentatus *see* *Dalmanites* (*Corycephalus*) *dentatus*

***Dalmanites* (*Corycephalus*) *dentatus* Barrett**

4310 $\frac{13374}{1}$ HYPOTYPE *Dalmanites dentata* Barrett. American journal of science and arts, ser. 3. 1876. 11:200.

Dalmanites (*Corycephalus*) *dentatus* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 5.

New Scotland beds

Port Jervis, Orange co. N. Y.

J. W. Hall, coll. 1877

4311 $\frac{13374}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 6.

New Scotland beds

Port Jervis N. Y.

J. W. Hall, coll. 1877

Dalmanites denticulatus *see* *Dalmanites* (*Coronura*) *diurus*

***Dalmanites* (*Coronura*) *diurus* Green (sp.)**

4312 $\frac{13375}{1}$ HYPOTYPE *Asaphus diurus* Green. American journal of science. 1839. v. 37, no. 1, p. 40.

Dalmanites aspectans (Conrad) Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 6, 8.

Dalmanites (*Coronura*) *aspectans* Hall & Clarke. Paleontology of New York. 1888. 7:33, pl. 13, fig. 3, 4.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

4313 $\frac{13375}{2}$ HYPOTYPE *Dalmanites helena* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 11.

Dalmanites (*Coronura*) *aspectans* (Conrad) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 13, fig. 5.

Onondaga limestone

Columbus O.

R. P. Whitfield, coll. 1865

- 4314 $\frac{13375}{3}$ HYPOTYPE *Dalmanites (Coronura) aspectans* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 13, fig. 9.

Onondaga limestone Lime Rock, near Leroy N. Y.
J. M. Clarke, coll. 1885.

- 4315 $\frac{13375}{4}$ HYPOTYPE? *Dalmanites denticulatus* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 1.

Dalmanites (Coronura) aspectans (Conrad)? Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 13, fig. 13.

Onondaga limestone
Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1865.

- 4316 $\frac{13375}{5}$ HYPOTYPE *Coronura diurus* Clarke. 10th annual report of the New York state geologist. 1891. pl. 4, fig. 1.

Onondaga limestone Leroy N. Y.
A. L. Arey purchase

Dalmanites dolphi see *Dalmanites (Corycephalus) dolphi*

***Dalmanites (Corycephalus) dolphi* Clarke**

- 4317 $\frac{13376}{1}$ TYPE *Dalmanites dolphi* Clarke. 12th annual report of the New York state geologist. 1893. p. 49, fig. 1.

Helderbergian Port Jervis, Orange co. N. Y.
J. M. Dolph, donor

Dalmanites emarginatus see *Dalmanites (Coronura) emarginatus*

***Dalmanites (Coronura) emarginatus* Hall**

- 4318 $\frac{13377}{1}$ TYPE *Dalmanites emarginatus* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 2.

Dalmanites (Coronura) emarginatus Hall & Clarke. Paleontology of New York. 1888. 7:40, pl. 11A, fig. 7.

Schoharie grit Schoharie N. Y.
J. Gebhard purchase

- 4319 $\frac{13377}{2}$ TYPE Hall. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 8.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

Dalmanites erina *see* *Dalmanites* (Odontochile) *erina*

Dalmanites (Chasmops?) *erina* *see* *Dalmanites* (Odontochile) *erinus*

***Dalmanites* (Odontochile) *erinus* Hall**

- 4320 $\frac{13378}{1}$ TYPE *Dalmania erina* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 62.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 3, 4.

Dalmanites (Chasmops?) *erina* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 16, 17.

Onondaga limestone

Clarence, Erie co. N. Y.

- 4321 $\frac{13378}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 18.

Onondaga limestone (drift)

Naples, Ontario co. N. Y.

J. M. Clarke purchase

***Dalmanites galea* Clarke**

- 4322 $\frac{13379}{1}$ PLASTOTYPE *Dalmanites galea* Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:31 pl. 2, fig. 4.

Maecurú sandstone (Lower Devonian)

Rio Maecurú, Pará, Brazil

***Dalmanites gemellus* Clarke**

- 4323 $\frac{13380}{1}$ PLASTOTYPE *Dalmanites gemellus* Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:38, pl. 2, fig. 14.

Maecurú sandstone (Lower Devonian)

Rio Maecurú, Pará, Brazil

Dalmanites glabratus *see* *Dalmanites* (Odontochile) *limulus*

Dalmanites helenae *see* *Dalmanites* (Coronura) *diurus*

Dalmanites (Odontochile) limulurus Green

- 4324 $\frac{13381}{1}$ TYPE *Asaphus pleuroptyx* Green. Monograph of the trilobites of North America. 1832. p. 55; specimen mentioned p. 56.

Lockport limestone

Genesee river, N. Y.

Albany Institute, donor

- 4325 $\frac{13381}{2}$ TYPE *Dalmanites wetherilli* Green. Monograph of the trilobites of North America. 1832. p. 57; original of cast no. 20.

Lockport limestone

Rochester N. Y.

Albany Institute, donor

- 4326 $\frac{13381}{3}$ HYPOPLASTOTYPE? *Dalmanites glabratus* Green. Monograph of the trilobites of North America. 1832. p. 52; cast no. 17.

Horizon?

Locality said to be Ripley O.

Albany Institute, donor

Dalmanites (*Chasmops*) *macrops* see
Dalmanites (*Coronura*?) *macrops*

Dalmanites (Coronura?) macrops Hall

- 4327 $\frac{13382}{1}$ TYPE *Dalmania macrops* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 59.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 9, 10 (not mentioned in explanation of plate).

Dalmanites (*Chasmops*) *macrops* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 14, 15.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

Dalmanites maecuruus Clarke

- 4328 $\frac{13383}{1}$ PLASTOTYPE *Dalmanites maecurua* Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9: 23, pl. 2, fig. 1.

Maecurú sandstone (Lower Devonian)

Rio Maecurú, Pará, Brazil

- 4329 $\frac{13383}{2}$ PLASTOTYPE Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. v. 9, pl. 2, fig. 3.

Maecurú sandstone (Lower Devonian)

Rio Maecurú, Pará, Brazil

Dalmanites meeki *see* *Dalmanites* (*Odontochile*) *meeki*

Dalmanites (*Hausmannia*) *meeki* *see* *Dalmanites* (*Odontochile*) *meeki*

***Dalmanites* (*Odontochile*) *meeki* Walcott**

4330 $\frac{13384}{1}$ PLASTOTYPE *Dalmanites meeki* Walcott. Monograph of the United States geological survey. 1884. v. 8, Paleontology of the Eureka district, p. 207.

Dalmanites (*Hausmannia*) *meeki* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 28.

Lower Devonian

Eureka district, Nev.

4331 $\frac{13384}{2}$ PLASTOTYPE Walcott. Monograph of the United States geological survey. 1884. v. 8, Paleontology of the Eureka district, pl. 17, fig. 5a, 5b.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 29, 30.

Lower Devonian

Eureka district, Nev.

***Dalmanites micrurus* Green (sp.)**

4332 $\frac{13385}{1}$ TYPE *Asaphus micrurus* Green. Monograph of the trilobites of North America. 1832. p. 56, fig. 3; original of cast no. 19.

Helderbergian

The Helderberg, N. Y.

Albany Institute, donor

4333 $\frac{13385}{2}$ HYPOTYPE *Asaphus pleuroptyx* Green. Monograph of the trilobites of North America. 1832. p. 55.

Dalmania pleuroptyx Hall. Paleontology of New York. 1859. 3:359 (wood cut).

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

4334 $\frac{13385}{3}$ HYPOTYPE *Dalmania pleuroptyx* Hall. Paleontology of New York. 1859. v. 3, pl. 74, fig. 1, 2.

Dalmanites micrurus Hall & Clarke. Paleontology of New York. 1888. v. 7 (mentioned on p. 29).

Helderbergian

Schoharie N. Y.

J. Gebhard purchase

Dalmanites (Coronura) myrmecophorus Green (sp.)

- 4335 $\frac{13386}{1}$ HYPOTYPE *Asaphus myrmecophorus* Green.
 Supplement to the Monograph of the trilobites of North
 America. 1835. p. 16.
Dalmanites (Coronura) myrmecophorus
 Hall & Clarke. Paleontology of New York. 1888. v. 7,
 pl. 13, fig. 12.
 Onondaga limestone
 Lime Rock, near Leroy, Genesee co. N. Y.
 J. M. Clarke, coll. 1885
- 4336 $\frac{13386}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
 1888. v. 7, pl. 14, fig. 1.
 Onondaga limestone Kingston, Ulster co. N. Y.
 L. Bevier purchase
- 4337 $\frac{13386}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
 Crustacea, pl. 13, fig. 15.
 Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 14, fig. 2.
 Onondaga limestone Schoharie N. Y.
 J. Gebhard purchase
- 4338 $\frac{13386}{4}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Illustrations of De-
 vonian fossils. 1876. Crustacea, pl. 13, fig. 16.
 Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 14, fig. 3.
 Onondaga limestone Schoharie N. Y.
 J. Gebhard purchase
- 4339 $\frac{13386}{5}$ HYPOTYPE (Type of Conrad's species) *Asaphus? acan-
 tho[p]leurus* Conrad. Annual report on the New
 York state geological survey. 1841. p. 48.
Dalmanites (Coronura) myrmecophorus
 Hall & Clarke. Paleontology of New York. 1888. v. 7,
 pl. 14, fig. 4-6.
 Onondaga limestone Schoharie N. Y.
- 4340 $\frac{13386}{6}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleon-
 tology of New York. 1888. v. 7, pl. 15, fig. 1-3.
 Onondaga limestone
 Near Clarksville, Albany co. N. Y.
 C. D. Walcott and C. Van Deloo, coll. 1878

- 4341 $\frac{13386}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 15, fig. 4.
Onondaga limestone Canandaigua N. Y.
J. M. Clarke purchase
Dalmanites nasutus *see* *Dalmanites* (*Probolium*) *nasutus*

***Dalmanites* (*Probolium*) *nasutus* Conrad (sp.)**

- 4342 $\frac{13387}{1}$ HYPOTYPE *Asaphus nasutus* Conrad. Annual report on the New York state geological survey. 1841. p. 49.
Dalmanites nasutus Hall. Paleontology of New York. 1859. v. 3, pl. 75, fig. 2.
New Scotland beds Schoharie N. Y.
- 4343 $\frac{13387}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 76, fig. 1.
New Scotland beds Schoharie N. Y.
- 4344 $\frac{13387}{3}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 76, fig. 2.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase
- 4345 $\frac{13387}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 76, fig. 3.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase
- 4346 $\frac{13387}{5}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 76, fig. 4-6.
New Scotland beds Schoharie N. Y.
- 4347 $\frac{13387}{6}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 76, fig. 7, 8.
New Scotland beds Schoharie N. Y.
Dalmanites paitúna *see* *Dalmanites* (*Cryphaeus*) *paitúna*

***Dalmanites* (*Cryphaeus*) *paitúna* Hartt & Rathbun**

- 4348 $\frac{13388}{1}$ PLASTOTYPE *Dalmania paitúna* Hartt & Rathbun. Annals of the New York lyceum of natural history. 1875. II:III.
Dalmanites paitúna Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. v. 9, pl. 1, fig. 13.
Eréré sandstone (Middle Devonic) Eréré, Brazil

- 4349 $\frac{13388}{2}$ **PLASTOTYPE** Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. v. 9, pl. 1, fig. 14.

Ereré sandstone (Middle Devonic) Ereré, Brazil

Dalmanites (*Hausmannia*) *phacoptyx*
see *Dalmanites* (*Odontochile*) *phacoptyx*

***Dalmanites* (*Odontochile*) *phacoptyx* Hall & Clarke**

- 4350 $\frac{13389}{1}$ **TYPE: PLASTOTYPE** *Dalmanites* (*Hausmannia*) *phacoptyx* Hall & Clarke. Paleontology of New York. 1888. 7:31, pl. 11A, fig. 23, 24.

Onondaga limestone North Cayuga Ont.

J. De Cew, coll. 1886

- 4351 $\frac{13389}{2}$ **TYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 26.

Onondaga limestone North Cayuga Ont.

J. De Cew, coll. 1866

- 4352 $\frac{13389}{3}$ **HYPOTYPE: HYPOPLASTOTYPE** Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 10.

Oriskanian Becraft mountain, Hudson N. Y.

***Dalmanites* (*Odontochile*) *pleuroptyx* Green (sp.)**

- 4353 $\frac{13390}{1}$ **TYPE** *Asaphus pleuroptyx* Green. Monograph of the trilobites of North America. 1832. p. 55; original of cast no. 18.

New Scotland beds The Helderberg, N. Y.

Albany Institute, donor

- 4354 $\frac{13390}{2}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 1.

Onondaga limestone

Lime Rock, near Leroy, Genesee co. N. Y.

Ward & Howell purchase

- 4355 $\frac{13390}{3}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 3.

Helderbergian Near Clarksville, Albany co. N. Y.

J. M. Clarke purchase

- 4356 $\frac{13390}{4}$ **HYPOTYPE** Hall. Paleontology of New York. 1859 v. 3, pl. 74, fig. 7.

New Scotland beds

Schoharie N. Y.

Dalmanites (Corycephalus) pygmaeus Hall & Clarke

- 4357 $\frac{13391}{1}$ TYPE *Dalmanites (Corycephalus) pygmaeus* Hall & Clarke. Paleontology of New York. 1888. 7:56, pl. 11, fig. 5, 6.

Onondaga limestone

Canandaigua N. Y.

J. M. Clarke purchase

- 4358 $\frac{13391}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11, fig. 7, 8.

Onondaga limestone

Canandaigua N. Y.

J. M. Clarke purchase

Dalmanites (Odontocephalus) selenurus Eaton (sp.)

- 4359 $\frac{13392}{1}$ HYPOTYPE *Asaphus selenurus* Eaton. Geological textbook. 1832. p. 31.

Dalmanites (Odontocephalus) selenurus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 15.

Onondaga limestone

Schoharie county, N. Y.

J. Gebhard purchase

- 4360 $\frac{13392}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 16, 17.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke, coll. 1885

- 4361 $\frac{13392}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 18.

Onondaga limestone

Phelps, Ontario co. N. Y.

J. M. Clarke, coll. 1885

- 4362 $\frac{13392}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 19.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

- 4363 $\frac{13392}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 21.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

- 4364 $\frac{13392}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 12, fig. 5, 6.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

- 4365 $\frac{13392}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 12, fig. 7.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

- 4366 $\frac{13392}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 12, 13.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 12, fig. 8, 9.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

- 4367 $\frac{13392}{9}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 1, 2.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 12, fig. 10, 11.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

- 4368 $\frac{13392}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888 v. 7, pl. 12, fig. 12.

Onondaga limestone

Lime Rock, near Leroy, Genesee co. N. Y.

J. M. Clarke, coll. 1885

Dalmanites (Cryphina) serrulus Hall & Clarke

- 4369 $\frac{13393}{1}$ TYPE Dalmanites (Hausmannia) concinnus var. serrula Hall & Clarke. Paleontology of New York. 1888. 7:30, pl. 11A, fig. 12.

Onondaga limestone

North Cayuga, Ont.

Dalmanites (Synphoria) stemmatus Clarke

- 4370 $\frac{13394}{1}$ TYPE Dalmanites sp. nov. A Clarke. American journal of science. 1892. 44:412.

Dalmanites (Synphoria) stemmatus Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 6.

Oriskanian

Becraft mountain, Hudson N. Y.

- 4371 $\frac{13394}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 7.

Oriskanian

Becraft mountain, Hudson N. Y.

- 4372 $\frac{13394}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 8, 9.

Oriskanian

Becraft mountain, Hudson N. Y.

- 4373 $\frac{13394}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.
- 4374 $\frac{13394}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.
- 4375 $\frac{13394}{6}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.
- 4376 $\frac{13394}{7}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 13.
Oriskanian Becraft mountain, Hudson N. Y.
- 4377 $\frac{13394}{8}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 14.
Oriskanian Becraft mountain, Hudson N. Y.
- 4378 $\frac{13394}{9}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 15.
Oriskanian Becraft mountain, Hudson N. Y.
- 4379 $\frac{13394}{10}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 16.
Oriskanian Becraft mountain, Hudson N. Y.
- 4380 $\frac{13394}{11}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 1.
Oriskanian Becraft mountain, Hudson N. Y.
- 4381 $\frac{13394}{12}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 2.
Oriskanian Becraft mountain, Hudson N. Y.

Dalmanites (Synphoria) stemmatus Clarke *var. convergens*
Clarke

- 4382 $\frac{13395}{1}$ TYPE *Dalmanites* sp. nov. A var. Clarke. American journal of science. 1892. 44:412.
Dalmanites (Synphoria) stemmatus var. convergens Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.
- 4383 $\frac{13395}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 4.
Oriskanian Becraft mountain, Hudson N. Y.

- 4384 $\frac{13395}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 5.

Oriskanian Becraft mountain, Hudson N. Y.

Dalmanites tridens see *Dalmanites* (*Probolium*) *tridens*

***Dalmanites* (*Probolium*) *tridens* Hall**

- 4385 $\frac{13396}{1}$ TYPE *Dalmanites tridens* Hall. Paleontology of New York. 1859. 3:361, pl. 75, fig. 3.

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

- 4386 $\frac{13396}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 75, fig. 5.

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

- 4387 $\frac{13396}{3}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 75, fig. 6.

New Scotland beds

Schoharie N. Y.

J. Gebhard purchase

Dalmanites vigilans see *Dalmanites* (*Odon-tochile*) *vigilans*

***Dalmanites* (*Odon-tochile*) *vigilans* Hall**

- 4388 $\frac{13397}{1}$ HYPOTYPE *Dalmania vigilans* Hall. Geological survey of Wisconsin; report of progress. 1861. p. 57.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 9.

Niagaran

Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Dalmanites wetherilli see *Dalmanites* *limu-lurus*

Dicranurus hamatus see *Ceratocephala* (*Dicranurus*) *hamata*

Dipleura dekayi see *Homalonotus* (*Dipleura*) *dekayi*

DIPTEROCARIS Clarke

***Dipterocaris pennae-daedali* Clarke**

- 4389 $\frac{13420}{1}$ TYPE *Dipterocaris pennae-daedali* Clarke. American journal of science, ser. 3. 1883. 25:122, 123, fig. 1.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 35, fig. 24.

Portage (Naples) beds Canadice, Ontario co. N. Y.
J. M. Clarke purchase

Dipterocaris pes-cervae Clarke

4390 $\frac{13421}{1}$ TYPE *Dipterocaris pes-cervae* Clarke. American journal of science, ser. 3. 1883. 25:123, fig. 4, 5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 35, fig. 20, 21.

Chemung beds Dansville, Livingston co. N. Y.
J. M. Clarke purchase

4391 $\frac{13421}{2}$ HYPOTYPE (?) Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 35, fig. 22, 23.

Portage (Naples) beds Naples, Ontario co. N. Y.
J. M. Clarke purchase

Dipterocaris procne Clarke

4392 $\frac{12422}{1}$ TYPE *Dipterocaris procne* Clarke. American journal of science, ser. 3. 1883. 25:122, fig. 2.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 35, fig. 25.

Portage (Naples) beds Canadice, Ontario co. N. Y.
J. M. Clarke purchase

4393 $\frac{13422}{2}$ TYPE Clarke. American journal of science, ser. 3. 1883.
25:122, fig. 3.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 35, fig. 26, 27.

Chemung beds Haskinsville, Steuben co. N. Y.
J. M. Clarke purchase

Dithyrocaris neptuni see *Mesothyra neptuni*

Dithyrocaris neptuni see *Mesothyra oceani*

ECHINOCARIS Whitfield

Echinocaris condylepis Hall & Clarke

4394 $\frac{13440}{1}$ TYPE *Echinocaris condylepis* Hall & Clarke.
Paleontology of New York. 1888. 7:173, pl. 29,
fig. 14, 15.

Chemung beds Belmont, Allegany co. N. Y.
A. Sherwood, coll. 1871

- 4395 $\frac{10440}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 29, fig. 16, 17.
Chemung beds Belmont N. Y.
A. Sherwood, coll. 1871

Echinocaris multinodosa Whitfield

- 4396 $\frac{13441}{1}$ PLASTOTYPE *Echinocaris multinodosa* Whitfield. American journal of science, ser. 3. 1880. v. 19: 38, pl. (circulated), fig. 8.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 18.

Erie shale Paine's creek, Leroy, Lake co. O.

- 4397 $\frac{13441}{2}$ PLASTOTYPE Whitfield. American journal of science, ser. 3. 1880. v. 19, pl. (circulated), fig. 16.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 19.

Erie shale Paine's creek, Leroy, Lake co. O.

Echinocaris punctata Hall

- 4398 $\frac{13442}{1}$ TYPE *Ceratiocaris armatus* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 72, pl. 1, fig. 3.

Hamilton beds Menteth's point, Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

- 4399 $\frac{13442}{2}$ HYPOTYPE *Echinocaris punctata* Hall & Clarke. Paleontology of New York. 1888. 7:166, pl. 27, fig. 10; pl. 28, fig. 4.

Hamilton beds Canandaigua lake, N. Y.

J. M. Clarke, coll. 1886

- 4400 $\frac{13442}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 1, 2; pl. 29, fig. 6.

Hamilton beds Fabius, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

- 4401 $\frac{13442}{4}$ HYPOTYPE Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 1, fig. 13.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 3.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

H. H. Smith and C. Van Deloo, coll. 1874

- 4402 $\frac{13442}{5}$ **HYPOTYPE** Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 1, fig. 16.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 5.
Hamilton beds Pratt's falls, N. Y.
H. H. Smith and C. Van Deloo, coll. 1874
- 4403 $\frac{13442}{6}$ **TYPE** *Ceratiocaris armatus* Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 1, fig. 1, 2.
Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23. fig. 4, 5.
Echinocaris punctata Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 6, 7.
Hamilton beds Canandaigua lake, N. Y.
- 4404 $\frac{13442}{7}$ **HYPOTYPE** Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 1, fig. 14, 15.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 1, 2.
Hamilton beds Pratt's falls, N. Y.
H. H. Smith and C. Van Deloo, coll. 1874
- 4405 $\frac{13442}{8}$ **HYPOTYPE: HYPOPLASTOTYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 3.
Hamilton beds Delphi, Onondaga co. N. Y.
H. H. Smith and C. Van Deloo, coll. 1873
- 4406 $\frac{13442}{9}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 4.
Hamilton beds Delphi N. Y.
H. H. Smith and C. Van Deloo, coll. 1873
- 4407 $\frac{13442}{10}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 5.
Hamilton beds Delphi N. Y.
H. H. Smith and C. Van Deloo, coll. 1873
- 4408 $\frac{13442}{11}$ **HYPOTYPE** Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 7.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871
- 4409 $\frac{13442}{12}$ **TYPE** *Ceratiocaris? punctatus* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 74, pl. 1, fig. 8.

Ceratiocaris (Aristozoe) punctatus Hall.
Illustrations of Devonian fossils. 1876. Crustacea, pl. 23,
fig. 7.

Echinocaris punctata Hall & Clarke. Paleon-
tology of New York. 1888. v. 7, pl. 29, fig. 8.

Hamilton beds

Ogden's or Kidder's Ferry, Cayuga lake, N. Y.

C. A. White. coll. 1860

4410 $\frac{13442}{13}$ TYPE (of mandible) Beecher. Second geological survey of
Pennsylvania, PPP. 1884. pl. 2, fig. 11.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 30, fig. 13, 15.

Hamilton beds

Delphi N. Y.

H. H. Smith and C. Van Deloo, coll. 1873

4411 $\frac{13442}{14}$ TYPE (of mandible) Beecher. Second geological survey of
Pennsylvania, PPP. 1884. pl. 2, fig. 9.

Hall & Clarke. Paleontology of New York. 1888. v. 7,
pl. 30, fig. 14.

Hamilton beds

Pratt's falls, N. Y.

H. H. Smith, coll. 1873

4412 $\frac{13442}{15}$ TYPE (of mandible) Hall & Clarke. Paleontology of New
York. 1888. v. 7, pl. 30, fig. 16.

Hamilton beds

Delphi N. Y.

H. H. Smith and C. Van Deloo, coll. 1873

4413 $\frac{13442}{16}$ TYPE (of mandible) Hall & Clarke. Paleontology of New
York. 1888. v. 7; pl. 30, fig. 17.

Hamilton beds

Delphi N. Y.

H. H. Smith and C. Van Deloo, coll. 1873

4414 $\frac{13442}{17}$ TYPE (of mandible) Hall & Clarke. Paleontology of New
York. 1888. v. 7, pl. 30, fig. 18.

Hamilton beds

Pratt's falls, N. Y.

H. H. Smith and C. Van Deloo, coll. 1874

4415 $\frac{13442}{18}$ TYPE (of mandible) Hall & Clarke. Paleontology of New
York. 1888. v. 7, pl. 30, fig. 19.

Hamilton beds

Pratt's falls, N. Y.

H. H. Smith and C. Van Deloo, coll. 1874

4416 $\frac{13442}{19}$ TYPE (of mandible) Beecher. Second geological survey of
Pennsylvania, PPP. 1884. pl. 2, fig. 10.

Hamilton beds

Delphi, Onondaga co. N. Y.

H. H. Smith and C. Van Deloo, coll. 1873

Echinocaris pustulosa Whitfield

- 4417 $\frac{13443}{1}$ PLASTOTYPE *Echinocaris pustulosa* Whitfield.
American journal of science, ser. 3. 1880. v. 19, no. 109,
p. 38, pl. (circulated), fig. 7.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 29, fig. 9, 10.
Erie shale Leroy, Lake co. O.

Echinocaris socialis Beecher

- 4418 $\frac{13444}{1}$ PLASTOTYPE *Echinocaris socialis* Beecher.
Second geological survey of Pennsylvania, PPP. 1884.
p. 10, pl. 2, fig. 6.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 30, fig. 6.
Chemung beds Warren Pa.
- 4419 $\frac{13444}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 30, fig. 7.
Chemung beds Warren Pa.
F. A. Randall purchase
- 4420 $\frac{13444}{3}$ PLASTOTYPE Beecher. Second geological survey of
Pennsylvania, PPP. 1884. pl. 1, fig. 5
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 30, fig. 8.
Chemung beds Warren Pa.
- 4421 $\frac{13444}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 30, fig. 10.
Chemung beds Warren Pa.
F. A. Randall purchase

Echinocaris sublaevis Whitfield

- 4422 $\frac{13445}{1}$ PLASTOTYPE *Echinocaris sublaevis* Whitfield.
American journal of science, ser. 3. 1880. 19:36,
pl. (circulated), fig. 4, 5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 29, fig. 11, 12.
Erie shale Leroy, Lake co. O.
- Echinocaris whitfieldi* see *Eleutherocaris whitfieldi*
Echinocaris wrightianus see *Stylonurus* (?)
(*Echinocaris*?) *wrightianus*

ELEUTHEROCARIS Clarke

Eleutherocaris whitfieldi Clarke

4423 $\frac{13460}{1}$ TYPE: PLASTOTYPE *Echinocaris whitfieldi* Clarke.
United States geological survey bulletin 16. 1885. p. 45,
pl. 2, fig. 3.

Clarke. Paleontology of New York. 1888. v. 7, pl. 29,
fig. 20.

Portage (Naples) beds

Hatch hill, Naples, Ontario co. N. Y.

J. M. Clarke purchase

4424 $\frac{13460}{2}$ PLASTOTYPE Clarke. United States geological survey
bulletin 16. 1885. pl. 2, fig. 4.

Clarke. Paleontology of New York. 1888. v. 7, pl. 29,
fig. 21.

Portage (Naples) beds

Hatch hill, Naples N. Y.

J. M. Clarke purchase

Elliptocephala asaphoides see *Olenellus*
(*Mesonacis*) *asaphoides*

ELYMOCARIS Beecher

Elymocariscapsella see *Rhinocaris capsella*

Elymocariscapsella Beecher

4425 $\frac{13480}{1}$ PLASTOTYPE *Elymocariscapsella* Beecher. Second
geological survey of Pennsylvania, PPP. 1884. p. 13,
pl. 2, fig. 1.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 31, fig. 5.

Chemung beds

Warren, Warren co. Pa.

4426 $\frac{13480}{2}$ PLASTOTYPE Beecher. Second geological survey of
Pennsylvania, PPP. 1884. pl. 2, fig. 2.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 31, fig. 6.

Chemung beds

Warren Pa.

EMMELEZOE Jones & Woodward

Emmelezoe decora Clarke

4427 $\frac{13500}{1}$ TYPE *Emmelezoe decora* Clarke. Annual report
of the New York state paleontologist. 1901. p. 95, pl. 2,
fig. 4, 5.

Salina beds

Erie canal, 2 miles northwest
of Pittsford, Monroe co. N. Y.

C. J. Sarle purchase

- 4428 $\frac{13500}{2}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 6.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
- 4429 $\frac{13500}{3}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 7.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
- 4430 $\frac{13500}{4}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 8.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
- 4431 $\frac{13500}{5}$ TYPE: PLASTOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 9.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
On slab with type of pl. 2, fig. 11; pl. 3, fig. 1, 2.
- 4432 $\frac{13500}{6}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 10.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
- 4433 $\frac{13500}{7}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 11.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
On slab with type of pl. 2, fig. 9 and pl. 3, fig. 1, 2.
- 4434 $\frac{13500}{8}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 1, 2.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
On slab with type of pl. 2, fig. 9 and 11.

- 4435 $\frac{13500}{9}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 3.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
- 4436 $\frac{13500}{10}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 4.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase
- Entomostracites crassicauda* see Illaenus crassicauda ?
Equisetides wrightianus see Stylonurus (?)
- (*Echinocaris* ?) wrightianus
Equisetides (*Stylonurus*) wrightianus see Stylonurus (?) *Echinocaris* (?) wrightianus

ESTHERIA Rüppel

Estheria membranacea Pacht

- 4437 $\frac{13520}{1}$ HYPOTYPE *Asmusia membranacea* Pacht. Der Devonische Kalk Livlands. 1849. p. 44.
Estheria membranacea Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 1.
Oneonta-Catskill beds Felter's glen, Albany co. N. Y.
C. S. Prosser, coll. 1895
- 4438 $\frac{13520}{2}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 2.
Oneonta-Catskill beds Felter's glen N. Y.
C. S. Prosser, coll. 1895
- 4439 $\frac{13520}{3}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 3.
Oneonta-Catskill beds Felter's glen N. Y.
C. S. Prosser, coll. 1895
- 4440 $\frac{13520}{4}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 4.
Oneonta-Catskill beds Felter's glen N. Y.
C. S. Prosser, coll. 1895

Estheria ortonii Clarke

- 4441 $\frac{13521}{1}$ TYPE *Estheria ortonii* Clarke. Annual report of the New York state paleontologist. 1901. p. 109, pl. 4, fig. 5.

Lower Barren Coal Measures

Carrollton O.

J. M. Clarke, donor

- 4442 $\frac{13521}{2}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 6.

Lower Barren Coal Measures

Carrollton O.

J. M. Clarke, donor

- 4443 $\frac{13521}{3}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 7.

Lower Barren Coal Measures

Carrollton O.

J. M. Clarke, donor

- 4444 $\frac{13521}{4}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 8.

Lower Barren Coal Measures

Carrollton O.

J. M. Clarke, donor

Estheria pulex Clarke

- 4445 $\frac{13522}{1}$ TYPE *Estheria pulex* Clarke. American journal of science, ser. 3. 1882. 23:476, pl. o, fig. 4.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 10, 11.

Hamilton beds Miles gully, Hopewell, Ontario co. N.Y.

J. M. Clarke purchase

Eurychilina Ulrich**Eurychilina bulbifera** Ruedemann

- 4446 $\frac{13540}{1}$ TYPE *Eurychilina bulbifera* Ruedemann. New York state museum bulletin 49. 1901. p. 76, pl. 5, fig. 14-16.

Trenton conglomerate

Rysedorph hill,

Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

- 4447 $\frac{13540}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 17.

Trenton conglomerate

Rysedorph hill N. Y.

R. Ruedemann, coll. 1900

Eurychilina dianthus Ruedemann

- 4448 $\frac{13541}{1}$ TYPE *Eurychilina dianthus* Ruedemann. New York state museum bulletin 49. 1901. p. 78, pl. 5, fig. 1.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of *Eurychilina obliqua*. New York state museum bulletin 49, pl. 5, fig. 10-12.

- 4449 $\frac{13541}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 2.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of *Leperditia resplendens*. New York state museum bulletin 49, pl. 5, fig. 24.

- 4450 $\frac{13541}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 8, 9.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

Eurychilina obliqua Ruedemann

- 4451 $\frac{13542}{1}$ TYPE *Eurychilina obliqua* Ruedemann. New York state museum bulletin 49. 1901. p. 79, pl. 5, fig. 10-12.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of *Eurychilina dianthus*. New York state museum bulletin 49, pl. 5, fig. 1.

Eurychilina reticulata Ulrich

- 4452 $\frac{13543}{1}$ HYPOTYPE *Eurychilina reticulata* Ulrich. Contributions to Canadian micro-paleontology, pt 2. 1889. p. 52.
Jones. Quarterly journal of the Geological society of London. 1890. v. 46, pl. 20, fig. 13a, 13b (identification not correct).
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase
- 4453 $\frac{13543}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 3.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

Eurychilina (?) solida Ruedemann

- 4454 $\frac{13544}{1}$ TYPE *Eurychilina(?) solida* Ruedemann. New York state museum bulletin 49. 1901. p. 77, pl. 5, fig. 18.

Trenton conglomerate

Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

Eurychilina subradiata Ulrich *var. rensselaerica* Ruedemann

- 4455 $\frac{13545}{1}$ TYPE *Eurychilina subradiata* Ulrich *var. rensselaerica* Ruedemann. New York state museum bulletin 49. 1901. p. 77, pl. 5, fig. 4, 5.

Trenton conglomerate

Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

- 4456 $\frac{13545}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 6.

Trenton conglomerate

Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

On slab with type of pl. 5, fig. 13.

- 4457 $\frac{13545}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 7.

Trenton conglomerate

Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

- 4458 $\frac{13545}{4}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 13.

Trenton conglomerate

Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

On slab with type of pl. 5, fig. 6.

EURYPTERUS De Kay**Eurypterus approximatus** Hall & Clarke

- 4459 $\frac{13560}{1}$ PLASTOTYPE *Eurypterus approximatus* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 27, fig. 6.

Waverly beds 3 miles south of Warren, Warren co. Pa.

Eurypterus beecheri Hall

- 4460 $\frac{13561}{1}$ PLASTOTYPE *Eurypterus beecheri* Hall. Second geological survey of Pennsylvania, PPP. 1884. p. 30, pl. 3, fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 27, fig. 5.

Chemung beds

Warren Pa.

Eurypterus dekayi Hall

- 4461 $\frac{13562}{1}$ TYPE *Eurypterus dekayi* Hall. Paleontology of New York. 1859. 3:411*, pl. 82, fig. 1.
 Salina waterlime Black Rock, Erie co. N. Y.
 J. Gebhard purchase

Eurypterus pachycheirus Hall

- 4462 $\frac{13563}{1}$ TYPE *Eurypterus pachycheirus* Hall. Paleontology of New York. 1859. 3:412*, pl. 82*, fig. 1, 1a.
 Salina waterlime
 Near Williamsville, Erie co. N. Y.
 J. Gebhard purchase

- 4463 $\frac{13563}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 82*, fig. 3.
 Salina waterlime Buffalo N. Y.
 J. Gebhard purchase

Eurypterus prominens Hall

- 4464 $\frac{13564}{1}$ PLASTOTYPE *Eurypterus prominens* Hall. Proceedings of the American association for the advancement of science. 1884. 33:420.
 Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 27, fig. 3, 4.
 Clinton beds Northern part of Cayuga county, N. Y.

Eurypterus remipes De Kay

- 4465 $\frac{13565}{1}$ HYPOTYPE *Eurypterus remipes* De Kay. Annals of the New York lyceum of natural history. 1825. 1:375.
 Clarke. Eastman's Zittel. Textbook of paleontology. 1900. 1:676, fig. 1420.
 Salina waterlime Buffalo N. Y.

HOMALONOTUS Koenig**Homalonotus (Calymmene) acanthurus** Clarke

- 4466 $\frac{13580}{1}$ PLASTOTYPE *Homalonotus (Calymmene) acanthurus* Clarke. Archivos do museu nacional do Rio de Janeiro. 1890. 9:11, pl. 1, fig. 9, 10.
 Maecurú sandstone (Lower Devonic)
 Maecurú, Pará, Brazil

Homalonotus (Dipleura) dekayi Green.

- 4467 $\frac{13581}{1}$ PLASTOTYPE *Dipleura dekayi* Green. Monograph of the trilobites of North America. 1832. p. 79, cast no. 31, pl., fig. 9.
Hamilton beds Northumberland Pa.
Albany Institute, donor
- 4468 $\frac{13581}{2}$ PLASTOTYPE *Nuttainia sparsa* (Eaton) Green. Monograph of the trilobites of North America. 1832. p. 89, cast no. 35.
Hamilton beds Near Coeymans, Albany co. N. Y.
Albany Institute, donor
- 4469 $\frac{13581}{3}$ TYPE (of description) *Dipleura dekayi* Green. Monograph of the trilobites of North America. 1832. p. 79.
Hamilton beds Madison county, N. Y.
Albany Institute, donor (Dewitt Clinton collection)
- 4470 $\frac{13581}{4}$ TYPE (of description) Green. Monograph of the trilobites of North America. 1832. p. 80.
Hamilton beds Cazenovia, Madison co. N. Y.
Albany Institute, donor
- 4471 $\frac{13581}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 1.
Hamilton beds Madison county, N. Y.
- 4472 $\frac{13581}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 2.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 2.
Hamilton beds Ladd's quarry, near Sherburne, Chenango co. N. Y.
J. Gebhard purchase
- 4473 $\frac{13581}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 6.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 6.
Hamilton beds Madison or Otsego county, N. Y.
J. Gebhard purchase
- 4474 $\frac{13581}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 7.

- Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 2, fig. 7.
Hamilton beds Madison county, N. Y.
- 4475 $\frac{13581}{9}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 2, fig. 8, 9.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 2, fig. 8, 9.
Hamilton beds Madison county, N. Y.
J. Gebhard purchase
- 4476 $\frac{13581}{10}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 2, fig. 11.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 2, fig. 11.
Hamilton beds Darien, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4477 $\frac{13581}{11}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 2, fig. 12.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 2, fig. 12.
Hamilton beds Cazenovia, Madison co. N. Y.
J. Gebhard purchase
- 4478 $\frac{13581}{12}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 3, fig. 1.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 3, fig. 1.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4479 $\frac{13581}{13}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 3, fig. 2.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 3, fig. 2.
Hamilton beds Near Leonardsville, Madison co. N. Y.
J. Gebhard purchase
- 4480 $\frac{13581}{14}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 3, fig. 3.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 3, fig. 3.
Hamilton beds Madison county, N. Y.
J. Gebhard purchase

- 4481 $\frac{13581}{15}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 3, fig. 4.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 3, fig. 4.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4482 $\frac{13581}{16}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 3, fig. 5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 3, fig. 5.
Hamilton beds Madison county, N. Y.
J. Gebhard purchase
- 4483 $\frac{13581}{17}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 4, fig. 3-5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 4, fig. 1-3.
Hamilton beds Madison county, N. Y.
J. Gebhard purchase
- 4484 $\frac{13581}{18}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 4, fig. 6.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4485 $\frac{13581}{19}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 4, fig. 7.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4486 $\frac{13581}{20}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 5, fig. 1.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1873
- 4487 $\frac{13581}{21}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 5, fig. 2, 3.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- Homalonotus delphinocephalus* see
Homalonotus (Trimerus) delphinocephalus
- Homalonotus (Trimerus) delphinocephalus* Green**
- 4488 $\frac{13582}{1}$ TYPE *Trimerus delphinocephalus* Green.
Monograph of the trilobites of North America. 1832.
p. 82, pl., fig. 1; original of cast no. 32.
Lockport limestone Loose, banks of
Lake Ontario, Monroe co. N. Y.
Albany Institute, donor

- 4489 $\frac{13582}{2}$ TYPE (of description) Green. Monograph of the trilobites of North America. 1832. p. 82.

Lockport limestone. Loose, banks of Lake Ontario,
Monroe county, N. Y.
Albany Institute, donor

- 4490 $\frac{13582}{3}$ HYPOTYPE *Homalonotus delphinocephalus* Hall. Paleontology of New York. 1852. v. 2, pl. 31, fig. 5a.

Clinton beds Mohawk, Herkimer co. N. Y.

- 4491 $\frac{13582}{4}$ HYPOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 31, fig. 5b.

Clinton beds Mohawk N. Y.

- 4492 $\frac{13582}{5}$ HYPOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 68, fig. 9.

Lockport limestone Lockport N. Y.

***Homalonotus major* Whitfield**

- 4493 $\frac{13583}{1}$ HYPOTYPE *Homalonotus major* Whitfield. American museum of natural history bulletin. 1885. v. 1, no. 6, p. 193.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 5A, fig. 1.

Oriskanian Bank of 4th Binnewater, Rosendale N. Y.
L. Bevier, exchange

***Homalonotus oiara* Hartt & Rathbun**

- 4494 $\frac{13584}{1}$ PLASTOTYPE *Homalonotus oiara* Hartt & Rathbun. Annals of the New York lyceum of natural history. 1876. 11:114.

Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:5, pl. 1, fig. 5.

Eréré sandstone (Middle Devonic)

Eréré, Pará, Brazil

***Homalonotus trentonensis* Simpson**

- 4495 $\frac{13585}{1}$ PLASTOTYPE *Homalonotus trentonensis* Simpson. Transactions of the American philosophical society. 1890. 16:460, fig. 31, no. 1.

Trenton limestone (?) Reedsville, Mifflin co. Pa.

- 4496 $\frac{13585}{2}$ PLASTOTYPE Simpson. Transactions of the American philosophical society. 1890. v. 16, fig. 31, no. 4.

Trenton limestone (?) Reedsville Pa.

- 4497 $\frac{13585}{3}$ PLASTOTYPE Simpson. Transactions of the American philosophical society. 1890. v. 16, fig. 31, no. 5.
Trenton limestone (?) Reedsville Pa.
Homalonotus vanuxemi see *Homalonotus*
(*Trimerus*) *vanuxemi*

***Homalonotus (Trimerus) vanuxemi* Hall**

- 4498 $\frac{13586}{1}$ HYPOTYPE *Homalonotus vanuxemi* Hall. Paleontology of New York. 1859. 3:352.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 5B, fig. 1, 2.
New Scotland beds Kingston N. Y.
L. Bevier, exchange

ILLAENUS Dalman

***Illaenus arcturus* Hall**

- 4499 $\frac{13600}{1}$ TYPE *Illaenus arcturus* Hall. Paleontology of New York. 1843. 1:23, pl. 4 bis, fig. 12.
Chazy limestone Chazy, Clinton co. N. Y.

***Illaenus armatus* Hall**

- 4500 $\frac{13601}{1}$ HYPOTYPE *Illaenus armatus* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 320.
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 12.
Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

***Illaenus crassicauda* (Wahlenberg)? Hall**

(=*Illaenus americanus* Billings)

- 4501 $\frac{13602}{1}$ TYPE (of Hall's description) *Entomostracites crassicauda* Wahlenberg. Nov. Act. Reg. Soc. Upsal. 1821. p. 294.

Illaenus crassicauda? Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 13a, 13b.

Chazy limestone Chazy, Clinton co. N. Y.

Illaenus ioxus see *Bumastus ioxus*

Illaenus (Bumastus) ioxus see *Bumastus ioxus*

Illaenus trentonensis see *Bumastus trentonensis*

ISOCHILINA Jones

Isochilina armata Walcott *var. pygmaea* Ruedemann

- 4502 $\frac{13620}{1}$ TYPE *Isochilina armata* Walcott *var. pygmaea* Ruedemann. New York state museum bulletin 49. 1901. p. 72, pl. 7, fig. 19.
Trenton conglomerate Rysedorph hill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1900
- 4503 $\frac{13620}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 20.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4504 $\frac{13620}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 21.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4505 $\frac{13620}{4}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 22.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4506 $\frac{13620}{5}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 23.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4507 $\frac{13620}{6}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 24.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4508 $\frac{13620}{7}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 25.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

ISOTELUS De Kay

Isotelus canalis Conrad

- 4509 $\frac{13640}{1}$ TYPE *Isotelus canalis* (Conrad in ms.) Hall. Paleontology of New York. 1847. 1:25, pl. 4 bis, fig. 17.
Chazy limestone Chazy, Clinton co. N. Y.

Isotelus gigas De Kay

- 4510 $\frac{13641}{1}$ PLASTOTYPE *Isotelus gigas* De Kay. Annals of the New York lyceum of natural history. 1824. 1:124, pl. 13, fig. 1.

Trenton limestone Trenton Falls, Oneida co. N. Y.
Albany Institute, donor

- 4511 $\frac{13641}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. Geological survey of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 706, fig. 8.

Lorraine sandy shales Drift, central New York

Isotelus gigas see *Isotelus jacobus*

Isotelus jacobus Clarke

- 4512 $\frac{13642}{1}$ TYPE *Isotelus gigas* (De Kay) Hall. Paleontology of New York. 1847. 1:231, pl. 61, fig. 3g.

Isotelus jacobus Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 706.

Trenton limestone Crown Point, Essex co. N. Y.

Albany Institute, donor

Isotelus cf. maximus Locke

- 4513 $\frac{13643}{1}$ HYPOTYPE *Isotelus cf. maximus* Locke. New York state museum bulletin 49. 1901. p. 59, pl. 4, fig. 1.

Trenton conglomerate Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

On slab with type of problematic crustacean, pl. 4, fig. 22.

Isotelus obtusus Hall (sp.)

- 4514 $\frac{13644}{1}$ TYPE *Asaphus? obtusus* Hall. Paleontology of New York. 1847. 1:24, pl. 4 bis, fig. 14.

Chazy limestone Clinton county, N. Y.

LEPERDITIA Rouault

Leperditia (*Isochilina*) *cylindrica* see
Bythocypris cylindrica

Leperditia fabulites Conrad sp.

- 4515 $\frac{13660}{1}$ HYPOTYPE *Cytherina fabulites* Conrad. Proceedings of the Academy of natural sciences of Philadelphia. 1843. 1:332.

Leperditia fabulites Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 19, 20.

Trenton conglomerate Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Leperditia gibbera var. *scalaris* *see* *Leperditia scalaris*

Leperditia parasitica *see* *Beyrichia parasitica*

***Leperditia resplendens* Ruedemann**

4516 $\frac{13661}{1}$ TYPE *Leperditia resplendens* Ruedemann. New York state museum bulletin 49. 1901. p. 71, pl. 5, fig. 21-23.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4517 $\frac{13661}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 24.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

On slab with type of *Eurychilina dianthus*, bulletin 49, pl. 5, fig. 2.

4518 $\frac{13661}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 25.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4519 $\frac{13661}{4}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 26, 27.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

***Leperditia scalaris* Jones**

4520 $\frac{13662}{1}$ HYPOTYPE *Leperditia gibbera* var. *scalaris* Jones. Annals and magazine of natural history, ser. 3. 1858. 4:250.

Leperditia scalaris Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6a.

Manlius limestone Erie county, N. Y.
A. W. Grabau, donor

4521 $\frac{13662}{2}$ HYPOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6b.

Manlius limestone Erie county, N. Y.
A. W. Grabau, donor

4522 $\frac{13662}{3}$ HYPOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6c.

Manlius limestone Erie county, N. Y.
A. W. Grabau, donor

- 4523 $\frac{13662}{4}$ HYPOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6d.

Manlius limestone

Erie county, N. Y.

A. W. Grabau, donor

Leperditia troyensis see *Aristozoe troyensis*

LEPIDOCOLEUS Faber

Lepidocoleus jamesi Hall & Whitfield (sp.)

- 4524 $\frac{13680}{1}$ HYPOTYPE *Plumulites jamesi* Hall & Whitfield. Geological survey of Ohio. 1875. Paleontology, v. 2, pt 2, p. 106.

Lepidocoleus jamesi Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 10.

Trenton limestone

Trenton Falls, Oneida co. N. Y.

R. Ruedemann, coll. 1900

- 4525 $\frac{13680}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 11.

Trenton shale

Port Schuyler, Albany co. N. Y.

R. Ruedemann, coll. 1899

- 4526 $\frac{13680}{3}$ HYPOTYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 12.

Lower Utica shale

Mechanicville, Saratoga co. N. Y.

R. Ruedemann, coll. 1900

- 4527 $\frac{13680}{4}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 16, 17.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4528 $\frac{13680}{5}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 18, 19.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

LICHAS Dalman

Lichas (*Conolichas*?) sp.?

- 4529 $\frac{13700}{1}$ TYPE *Lichas pustulosus* Hall. Paleontology of New York. 1859. 3:336, pl. 78, fig. 7.

Lichas (*Conolichas*?) sp.? Hall & Clarke.

Paleontology of New York. 1888. v. 7, pl. 19, fig. 9.

New Scotland beds

Schoharie, Schoharie co. N. Y.

J. Gebhard purchase

Lichas (Arges) consanguineus Clarke

- 4530 $\frac{13701}{1}$ TYPE *Arges consanguineus* Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 746, fig. 65.

New Scotland beds

Feurabush, near Clarksville,
Albany co. N. Y.

J. M. Clarke, donor

Lichas (Arges) contusus Hall & Clarke

- 4531 $\frac{13702}{1}$ TYPE *Lichas (Arges) contusus* Hall & Clarke. Paleontology of New York. 1888. 7:83, pl. 19B, fig. 3.

Onondaga limestone Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

- 4532 $\frac{13702}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19 B, fig. 4-6.

Onondaga limestone

Near Clarksville N. Y.

J. W. Hall, coll. 1877

Lichas (Conolichas) cornutus Clarke

- 4533 $\frac{13703}{1}$ TYPE *Lichas (Conolichas) cornutus* Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 749, fig. 72, 73.

Middle Trenton limestone

Trenton Falls N. Y.

Lichas (Ceratolichas) dracon Hall & Clarke

- 4534 $\frac{13704}{1}$ TYPE *Acidaspis* sp. n. ? Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 2, 3.

Lichas (Ceratolichas) dracon Hall & Clarke. Paleontology of New York. 1888. 7:85, pl. 19B, fig. 14, 15.

Onondaga limestone

Schoharie, Schoharie co. N. Y.

J. Gebhard purchase

- 4535 $\frac{13704}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19 B, fig. 16, 17.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

- 4536 $\frac{13704}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19 B, fig. 18, 18a.

Onondaga limestone

Leroy, Genesee co. N. Y.

J. M. Clarke, coll. 1886

Lichas eriopis *see* *Lichas (Arges) eriopis*

Lichas (Arges) eriopis Hall

- 4537 $\frac{13705}{1}$ TYPE *Lichas eriopis* Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 226.

Acidaspis (*Terataspis*) *eriopis* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 4-7.

Lichas (*Conolichas*) *eriopis* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 2-5.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

- 4538 $\frac{13705}{2}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 8.

Onondaga limestone (drift) Canandaigua N. Y.

- 4539 $\frac{13705}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 9.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

- 4540 $\frac{13705}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 12.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 11.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

- 4541 $\frac{13705}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 13-16.

Onondaga limestone (chert in drift) Canandaigua N. Y.

J. M. Clarke purchase

Lichas grandis *see* *Lichas* (*Terataspis*) *grandis*

***Lichas* (*Terataspis*) *grandis* Hall**

- 4542 $\frac{13706}{1}$ TYPE *Lichas grandis* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 110.

Acidaspis (*Terataspis*) *grandis* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 17, fig. 1, 2.

Lichas (*Terataspis*) *grandis* Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 17, fig. 2, 3.

Schoharie grit

Schoharie N. Y.

C. Van Deloo, coll. 1862

4543 $\frac{13706}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 17, fig. 4, 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 17, fig. 4, 5.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4544 $\frac{13706}{3}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 1.

Schoharie grit Near Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

4545 $\frac{13706}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 2.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4546 $\frac{13706}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 18, fig. 4.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 4.

Schoharie grit

Near Clarksville N. Y.

J. Gebhard purchase

4547 $\frac{13706}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 18, fig. 3.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 5.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4548 $\frac{13706}{7}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 6.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

4549 $\frac{13706}{8}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 7.

Schoharie grit

Knox N. Y.

C. Van Deloo, coll. 1862

Lichas (Ceratolichas) gryps Hall & Clarke

4550 $\frac{13707}{1}$ TYPE *Acidaspis* sp. n.? Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 1.

Lichas (Ceratolichas) gryps Hall & Clarke. Paleontology of New York. 1888. 7:84, pl. 19B, fig. 7, 8.

Onondaga limestone

Schoharie N. Y.

J. Gebhard purchase

4551 $\frac{13707}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19B, fig. 9-11.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

4552 $\frac{13707}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19B, fig. 12-13.

Onondaga limestone

Canandaigua N. Y.

J. M. Clarke, coll. 1886

Lichas (Arges) hispidus Hall & Clarke

4553 $\frac{13708}{1}$ TYPE *Acidaspis (Terataspis) eriopis* Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 8, 9.

Lichas (Conolichas) hispidus Hall & Clarke. Paleontology of New York. 1888. 7:77, pl. 19A, fig. 14, 17.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

4554 $\frac{13708}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 18.

Onondaga limestone

Leroy, Genesee co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Lichas (Conolichas) hispidus *see* *Lichas (Arges) hispidus*

Lichas (Dicranogmus) ptyonurus Hall & Clarke

4555 $\frac{13709}{1}$ TYPE *Lichas (Dicranogmus) ptyonurus* Hall & Clarke. Paleontology of New York. 1888. 7:86, pl. 19B, fig. 19.

Coralline (Cobleskill) limestone Schoharie county, N. Y.

J. Gebhard purchase

- 4556 $\frac{13709}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 19B, fig. 20.
Coralline (Cobleskill) limestone Schoharie county, N.Y.
- 4557 $\frac{13709}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 19B, fig. 21.
Coralline (Cobleskill) limestone Schoharie county, N.Y.
J. Gebhard purchase
- Lichas pustulosus* see Lichas (Conolichas?) sp.?
Lichas pustulosus see Lichas (Conolichas) pustulosus
- Lichas (Conolichas) pustulosus Hall**
- 4558 $\frac{13710}{1}$ TYPE Lichas pustulosus Hall. Paleontology of New York. 1859. 3:366, pl. 77, fig. 9, 10.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase
- 4559 $\frac{13710}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 77, fig. 11.
Helderbergian Schoharie N. Y.
- 4560 $\frac{13710}{3}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 2.
Helderbergian Schoharie N. Y.
- 4561 $\frac{13710}{4}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 3.
Helderbergian Schoharie N. Y.
- 4562 $\frac{13710}{5}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 4.
Helderbergian Schoharie N. Y.
- 4563 $\frac{13710}{6}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 5.
Helderbergian Schoharie N. Y.
- 4564 $\frac{13710}{7}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 6.
Helderbergian Schoharie N. Y.
- 4565 $\frac{13710}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 19, fig. 13.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

- 4566 $\frac{13710}{9}$ HYPOTYPE: HYPOPLASTOTYPE *Lichas* (*Conolichas*)
pustulosus Hall & Clarke. Paleontology of New
 York. 1888. v. 7, pl. 19, fig. 8.

New Scotland beds Near Clarksville, Albany co. N. Y.

- 4567 $\frac{13710}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
 1888. v. 7, pl. 19, fig. 10.

Helderbergian

Schoharie county, N. Y.

J. Gebhard purchase

- 4568 $\frac{13710}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
 1888. v. 7, pl. 19, fig. 11.

Helderbergian

Schoharie county, N. Y.

J. Gebhard purchase

MACRONOTELLA Ulrich

Macronotella fragaria Ruedemann

- 4569 $\frac{13720}{1}$ TYPE *Macronotella fragaria* Ruedemann. New
 York state museum bulletin 49. 1901. p. 85, pl. 6,
 fig. 3-5.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

Macronotella ulrichi Ruedemann

- 4570 $\frac{13721}{1}$ TYPE *Macronotella ulrichi* Ruedemann. New
 York state museum bulletin 49. 1901. p. 83, pl. 6,
 fig. 6-8.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4571 $\frac{13721}{2}$ TYPE Ruedemann. New York state museum bulletin 49.
 1901. pl. 6, fig. 9.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4572 $\frac{13721}{3}$ TYPE Ruedemann. New York state museum bulletin 49.
 1901. pl. 6, fig. 10-12; pl. 7, fig. 1.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4573 $\frac{13721}{4}$ TYPE Ruedemann. New York state museum bulletin 49.
 1901. pl. 6, fig. 13-15.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4574 $\frac{13721}{5}$ TYPE Ruedemann. New York state museum bulletin 49
1901. pl. 6, fig. 16.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

MESOTHYRA Hall & Clarke

Mesothyra neptuni Hall

- 4575 $\frac{13740}{1}$ TYPE: PLASTOTYPE *Dithyrocaris neptuni* Hall.
16th annual report of the New York state cabinet of
natural history. 1863. p. 75, pl. 1, fig. 9.
Hall. Illustrations of Devonian fossils. 1876. Crustacea,
pl. 23, fig. 6.
Mesothyra neptuni Hall & Clarke. Paleontology
of New York. 1888. v. 7, pl. 32, fig. 7; pl. 33, fig. 1.
Hamilton beds Plainfield, Otsego co. N. Y.
J. Gebhard purchase

Mesothyra oceani Hall & Clarke

- 4576 $\frac{13741}{1}$ TYPE *Mesothyra oceani* Hall & Clarke. Paleon-
tology of New York. 1888. 7:187, pl. 32, fig. 1, 2, 4, 6;
pl. 33, fig. 4.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 4577 $\frac{13741}{2}$ TYPE *Dithyrocaris neptuni* Hall. Illustrations
of Devonian fossils. 1876. Crustacea, pl. 22, fig. 1.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 32, fig. 3; pl. 33, fig. 5.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 4578 $\frac{13741}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 23, fig. 1.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 33, fig. 6.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
- 4579 $\frac{13741}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 23, fig. 2.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 33, fig. 7.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
On slab with type of pl. 34, fig. 1.

- 4580 $\frac{13741}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
 Crustacea, pl. 22, fig. 3.
 Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 34, fig. 1.
 Portage (Ithaca) beds Ithaca N. Y.
 J. W. Hall and G. B. Simpson, coll. 1870
 On slab with type of pl. 33, fig. 7.
- 4581 $\frac{13741}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
 Crustacea, pl. 22, fig. 2.
 Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 34, fig. 2.
 Portage (Ithaca) beds Ithaca N. Y.
 J. W. Hall and G. B. Simpson, coll. 1870
- 4582 $\frac{13741}{7}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
 Crustacea, pl. 22, fig. 5.
 Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 34, fig. 3.
 Portage (Ithaca) beds Ithaca N. Y.
 J. W. Hall and G. B. Simpson, coll. 1870
- 4583 $\frac{13741}{8}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
 Crustacea, pl. 22, fig. 4.
 Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 32, fig. 5; pl. 34, fig. 4.
 Portage (Ithaca) beds Ithaca N. Y.
 J. W. Hall and G. B. Simpson, coll. 1870
- 4584 $\frac{13741}{9}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
 Crustacea, pl. 23, fig. 3.
 Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 34, fig. 5.
 Portage (Ithaca) beds Ithaca N. Y.
 J. W. Hall and G. B. Simpson, coll. 1870
- Mesothyra spumaea** Hall & Clarke
- 4585 $\frac{13742}{1}$ TYPE *Mesothyra spumaea* Hall & Clarke. Paleontology of New York. 1888. 7:193, pl. 32, fig. 8, 9.
 Hamilton beds Delphi, Onondaga co. N. Y.
 H. H. Smith and C. Van Deloo, coll. 1874
- 4586 $\frac{13742}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
 v. 7, pl. 33, fig. 2.
 Hamilton beds Pratt's falls, Onondaga co. N. Y.
 H. H. Smith and C. Van Deloo, coll. 1874

Mesothyra (*Dithyrocaris*?) *veneris* *see*
Rhinocaris veneris

MICRODISCUS Emmons

Microdiscus meeki Ford

4587 $\frac{13743}{1}$ TYPE *Microdiscus meeki* Ford. American journal
of science and arts, ser. 3. 1876. 11:371 (not figured;
original of description).

Walcott. United States geological survey bulletin 30.
1886. pl. 16, fig. 4.

Walcott. 10th annual report of the director of the
United States geological survey. 1890. pl. 81, fig. 3.

Lower Cambrian Troy N. Y.
S. W. Ford purchase

Microdiscus speciosus Ford

4588 $\frac{13744}{1}$ TYPE *Microdiscus speciosus* Ford. American
journal of science and arts, ser. 3. 1873. 6:137, fig. 2a.

Lower Cambrian Troy N. Y.
S. W. Ford purchase

4589 $\frac{13744}{2}$ TYPE Ford. American journal of science and arts, ser. 3.
1873. 6:137, fig. 2b.

Lower Cambrian Troy N. Y.
S. W. Ford purchase

4590 $\frac{13744}{3}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1877. 13:141 (not figured).

Walcott. United States geological survey bulletin 30.
1886. pl. 16, fig. 3, 3a.

Lower Cambrian Troy N. Y.
S. W. Ford purchase

4591 $\frac{13744}{4}$ HYPOTYPE Walcott. United States geological survey
bulletin 30. 1886. pl. 16, fig. 3b.

Lower Cambrian Troy N. Y.
S. W. Ford purchase

MOOREA Jones & Kirkby

Moorea kirkbyi Jones

4592 $\frac{13760}{1}$ TYPE *Moorea kirkbyi* Jones. Quarterly journal
of the geological society of London. 1890. 46:542, pl. 20,
fig. 9a, 9b.

Onondaga limestone (drift) Canandaigua,
Ontario co. N. Y.
J. M. Clarke purchase

Nuttania concentrica *see* *Trinucleus concentricus*.

Nuttania sparsa *see* *Homalonotus (Dipleura) dekayi*

OCTONARIA Jones

Octonaria linnarssoni Jones

- 4593 $\frac{13780}{1}$ TYPE *Octonaria linnarssoni* Jones. Quarterly journal of the geological society of London. 1890. 46:541, pl. 20, fig. 7a, 7b.

Hamilton beds

Clark county, Ind.

J. M. Clarke purchase

OLENELLUS Hall

Olenellus asaphoides *see* *Olenellus (Mesonacis) asaphoides*

Olenellus (Mesonacis) asaphoides Emmons (sp.)

- 4594 $\frac{13800}{1}$ HYPOTYPE *Elliptocephala asaphoides* Emmons. Taconic system. 1844. p. 21.

Olenellus asaphoides Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 1a, 1b.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 4595 $\frac{13800}{2}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 2a, 2b.

Walcott. United States geological survey bulletin 30. 1886. pl. 20, fig. 3.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 86, fig. 3.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 4596 $\frac{13800}{3}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 3a, 3b.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 4597 $\frac{13800}{4}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 4a, 4b.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 4598 $\frac{13800}{6}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1877. v. 13, pl. 4, fig. 5; 1881. 22:251, fig. 3.
Walcott. United States geological survey bulletin 30.
1886. pl. 17, fig. 7; pl. 20, fig. 3b.
Walcott. 10th annual report of the director of the
United States geological survey. 1890. pl. 88, fig. 1d.
Lower Cambrian Troy N. Y.
S. W. Ford purchase
- 4599 $\frac{13800}{6}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1877. v. 13, pl. 4, fig. 6.
Lower Cambrian Troy N. Y.
S. W. Ford purchase
- 4600 $\frac{13800}{7}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1877. v. 13, pl. 4, fig. 7.
Lower Cambrian Troy N. Y.
S. W. Ford purchase
- 4601 $\frac{13800}{8}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1877. v. 13, pl. 4, fig. 8.
Lower Cambrian Troy N. Y.
S. W. Ford purchase
- 4602 $\frac{13800}{9}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1877. v. 13, pl. 4, fig. 9.
Lower Cambrian Troy N. Y.
S. W. Ford purchase
- 4603 $\frac{13800}{10}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1877. v. 13, pl. 4, fig. 10a, 10b.
Lower Cambrian Troy N. Y.
S. W. Ford purchase
- 4604 $\frac{13800}{11}$ HYPOTYPE Ford. American journal of science and arts,
ser. 3. 1881. 22:251, fig. 1.
Walcott. United States geological survey bulletin 30.
1886. pl. 17, fig. 8; pl. 20, fig. 3a.
Walcott. 10th annual report of the director of the
United States geological survey. 1890. pl. 86, fig. 3a;
pl. 88, fig. 1b.
Lower Cambrian Troy N. Y.
S. W. Ford purchase

- 4605 $\frac{13800}{12}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1881. 22:251, fig. 2.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 88, fig. 1c.

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

PALAEOCREUSIA Clarke

Palaeocreusia devonica Clarke

- 4606 $\frac{13820}{1}$ TYPE *Palaeocreusia devonica* Clarke. Paleontology of New York. 1888. 7:210, pl. 36, fig. 24-26.

Onondaga limestone

Leroy, Genesee co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

PALAEOPALAEON Whitfield

Palaeopalaemon newberryi Whitfield

- 4607 $\frac{13840}{1}$ PLASTOTYPE *Palaeopalaemon newberryi* Whitfield. American journal of science, ser. 3. 1880. v. 19, p. 41, pl. (circulated) fig. 12.

Whitfield. Paleontology of Ohio. 1893. v. 7, pl. 8, fig. 19-21.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 20-23.

Erie shale

Leroy, Lake co. O.

PEPHRICARIS Clarke

Pephricaris horripilata Clarke

- 4608 $\frac{13860}{1}$ TYPE *Pephricaris horripilata* Clarke. 15th annual report of the New York state geologist. 1898. 1:731, fig. 1; p. 732, fig. 2.

Chemung sandstone

Alfred N. Y.

A. R. Crandall, exchange

PHACOPS Emmrich

Phacops anceps Clarke

- 4609 $\frac{13880}{1}$ TYPE *Phacops anceps* Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:16, pl. 1, fig. 3.

Onondaga limestone

Cayuga Ont.

C. D. Walcott, coll. 1878

Phacops (*Acaste*) cf. *anceps* see *Phacops* correlator

Phacops bufo (= rana) Green (sp.)

- 4610 13881₁ PLASTOTYPE *Calymene bufo* Green. Monograph of the trilobites of North America. 1832. p. 41, cast no. 10.
Phacops bufo Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 8, fig. 24, 25.
 Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8, fig. 25, 26.
 Hamilton beds (?) New Jersey
 Albany Institute, donor

Phacops correlator Clarke

- 4611 13882₁ TYPE: PLASTOTYPE *Phacops (Acaste) cf. anceps* Clarke. American journal of science. 1892. 44:412.
Phacops correlator Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 9.
 Oriskanian Becraft mountain, Hudson N. Y.

Phacops cristata Hall

- 4612 13883₁ TYPE *Phacops cristata* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 67.
 Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 1, 2.
 Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 6, fig. 1, 2.
 Schoharie grit Knox, Albany co. N. Y.
 C. Van Deloo, coll. 1862
- 4613 13883₂ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 3, 4.
 Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 6, fig. 3, 4.
 Schoharie grit Near Clarksville, Albany co. N. Y.
 C. Van Deloo, coll. 1862
- 4614 13883₃ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 5.
 Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 6, fig. 5.
 Schoharie grit Schoharie N. Y.
 J. Gebhard purchase

- 4615 $\frac{13883}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl 6, fig. 9, 10.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 6, 7.
Schoharie grit Albany county, N. Y.
J. Gebhard purchase
- 4616 $\frac{13883}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 11.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 8.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862
- 4617 $\frac{13883}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 6.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 9.
Schoharie grit Near Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861
- 4618 $\frac{13883}{7}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 7.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 10.
Schoharie grit Albany county, N. Y.
- 4619 $\frac{13883}{8}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 12, 13.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 12, 13.
Schoharie grit Schoharie N. Y.
- 4620 $\frac{13883}{9}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 16.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 27.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862
- 4621 $\frac{13883}{10}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 19.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 26.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862

- 4622 $\frac{13883}{11}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 18.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 28.
Onondaga limestone Near Clarence, Erie co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1860
- 4623 $\frac{13883}{12}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 6, fig. 17.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 6, fig. 29.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1861
- 4624 $\frac{13883}{13}$ PLASTOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 1, 2.
Schoharie grit Albany county, N. Y.
- 4625 $\frac{13883}{14}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 3.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862
- 4626 $\frac{13883}{15}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 4.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862

Phacops cristata Hall *var. pipa* Hall & Clarke

- 4627 $\frac{13884}{1}$ TYPE *Phacops cristata* var. *pipa* Hall & Clarke.
Paleontology of New York. 1888. 7:18, pl. 8A, fig. 5.
Onondaga limestone Leroy, Genesee co. N. Y.
J. M. Clarke, coll. 1885
- 4628 $\frac{13884}{2}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New
York. 1888. v. 7, pl. 8A, fig. 9.
Onondaga limestone (drift)
Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase
On slab with type of *Cyphaspis minuscula*, Pal. N. Y.
v. 7, pl. 24, fig. 11.
- 4629 $\frac{13884}{3}$ PLASTOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 10.
Onondaga limestone North Cayuga Ont.

- 4630 $\frac{13884}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 11, 12.
Onondaga limestone Walpole Ont.
C. D. Walcott, coll. 1878
- 4631 $\frac{13884}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 14.
Onondaga limestone Lime Rock, Genesee co. N. Y.
J. M. Clarke, coll. 1885
- 4632 $\frac{13884}{6}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 15.
Onondaga limestone (chert) Canandaigua N. Y.
J. M. Clarke, coll. 1885
- 4633 $\frac{13884}{7}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 17.
Oriskanian Cayuga Ont.
C. D. Walcott, coll. 1878
- 4634 $\frac{13884}{8}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 18.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase
- 4635 $\frac{13884}{9}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 25, 26.
Onondaga limestone (drift) West Bloomfield,
Ontario co. N. Y.
J. M. Clarke purchase
- 4636 $\frac{13884}{10}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 31.
Onondaga limestone West Bloomfield N. Y.
J. M. Clarke purchase
- Phacops logani Hall**
- 4637 $\frac{13885}{1}$ TYPE Phacops logani Hall. Paleontology of New York. 1859. 3:353, pl. 73, fig. 23, 24.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase
- 4638 $\frac{13885}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3,
pl. 73, fig. 15.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8A, fig. 19.
Helderbergian Schoharie N. Y.
J. Gebhard purchase

- 4639 $\frac{13885}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 20.
Helderbergian Schoharie N. Y.
J. Gebhard purchase
- 4640 $\frac{13885}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 1, 2.
Oriskanian Becraft mountain, Hudson N. Y.
- 4641 $\frac{13885}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.
- 4642 $\frac{13885}{6}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 4.
Oriskanian Becraft mountain, Hudson N. Y.
- 4643 $\frac{13885}{7}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 5.
Oriskanian Becraft mountain, Hudson N. Y.

Phacops menurus Clarke

- 4644 $\frac{13886}{1}$ PLASTOTYPE *Phacops menurus* Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:17, pl. 1, fig. 15.
Maecurú sandstone (Lower Devonic)
Maecurú, Pará, Brazil

Phacops rana Green

- 4645 $\frac{13887}{1}$ TYPE *Calymene bufo* var. *rana* Green. Monograph of the trilobites of North America. 1832. p. 42, original of casts no. 11 and 12.
Hamilton beds Seneca, Ontario co. N. Y.
Albany Institute, donor
- 4646 $\frac{13887}{2}$ PLASTOTYPE *Calymene macrophthalma* (Brongniart) Green = *C. bufo* Green. Monograph of the trilobites of North America. 1832. p. 39, cast no. 9.
Hamilton beds New York (?)
Albany Institute, donor
- 4647 $\frac{13887}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 7, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 7, fig. 1.
Hamilton beds Near Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 4648 $\frac{13887}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 5.
Hamilton beds Darien, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4649 $\frac{13887}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 9.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 6.
Hamilton beds Near Genesee N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4650 $\frac{13887}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 6, 7.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 7, 8.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 4651 $\frac{13887}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 8.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 9.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 4652 $\frac{13887}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 10, 11.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 10, 11.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862
- 4653 $\frac{13887}{9}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 8, fig. 10.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8, fig. 11.
Hamilton beds Darien N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4654 $\frac{13887}{10}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 8, fig. 12.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8, fig. 13.
Hamilton beds Genesee N. Y.
C. A. White and C. Van Deloo, coll. 1860

- 4655 $\frac{13887}{11}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 8, fig. 14.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8, fig. 15.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4656 $\frac{13887}{12}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 8, fig. 15, 16.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8, fig. 16, 17.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858
- 4657 $\frac{13887}{13}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 21.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
F. A. Randall purchase
- 4658 $\frac{13887}{14}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 22.
Hamilton beds Darien N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4659 $\frac{13887}{15}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 28.
Hamilton beds Near Centerfield, Ontario co. N. Y.
J. M. Clarke purchase
- 4660 $\frac{13887}{16}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 29.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4661 $\frac{13887}{17}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 30.
Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857
- 4662 $\frac{13887}{18}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 31.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4663 $\frac{13887}{19}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 32.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

- 4664 $\frac{13887}{20}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 8A, fig. 33.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
- 4665 $\frac{13887}{21}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 16, fig. 22.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
- 4666 $\frac{13887}{22}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 8.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4667 $\frac{13887}{23}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 9.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4668 $\frac{13887}{24}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 10.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4669 $\frac{13887}{25}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 15, 24.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4670 $\frac{13887}{26}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 17.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4671 $\frac{13887}{27}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 18.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4672 $\frac{13887}{28}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 19.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase
- 4673 $\frac{13887}{29}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 20.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4674 $\frac{13887}{30}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 21.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4675 $\frac{13887}{31}$ HYPOTYPE Clarke. Journal of morphology. 1888-89.
v. 2, pl. 21, fig. 30.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

Phacops scirpeus Clarke

4676 $\frac{13888}{1}$ PLASTOTYPE *Phacops scirpeus* Clarke. Archivos do
Museu nacional do Rio de Janeiro. 1890. 9:18, pl. 1, fig. 6.
Maecurú sandstone (Lower Devonic)

Maecurú, Pará, Brazil

Phaëtonides arenicolus see *Cordania arenicola*

Phaëtonides cyclurus see *Cordania cyclurus*

Phaëtonides gemmaeus see *Cordania gemmaea*

Phaëtonides macrobius see *Cordania macrobius*

Phaëtonides varicella see *Cordania varicella*

Phillipsia minuscula see *Cyphaspis minuscula*

Phillipsia? (*Brachymetopus?*) *ornata* see *Cyphaspis ornata*

Phyllocarid, mandible of see *Echinocaris punctata*

PLATYMETOPUS (Angelin) Schmidt

Platymetopus trentonensis Conrad (sp.)

4677 $\frac{13900}{1}$ HYPOPLASTOTYPE *Asaphus?* *trentonensis* Conrad.
Journal of the Academy of natural sciences of Philadelphia.
1842. 8:277.

Platynotus trentonensis Hall. Paleontology
of New York. 1847. v. 1, pl. 64, fig. 1e.

Trenton beds Near Cincinnati O.

Platynotus trentonensis see *Platymetopus trentonensis*

Plumulites jamesi see *Lepidocoleus jamesi*

Plumulites newberryi see *Turrilepas* (?) *newberryi*

POLLICIPES Leach

Pollicipes siluricus Ruedemann

- 4678 $\frac{13920}{1}$ TYPE *Pollicipes siluricus* Ruedemann. New York state museum bulletin 42. 1901. p. 578, pl. 2, fig. 16.
Upper Utica shale Green Island, Albany co. N. Y.
R. Ruedemann, coll. 1900
- 4679 $\frac{13920}{2}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 2, fig. 17.
Lower Utica shale Mechanicville, Saratoga co. N. Y.
R. Ruedemann, coll. 1899
- 4680 $\frac{13920}{3}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 2, fig. 18, 21.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900
- 4681 $\frac{13920}{4}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 2, fig. 19.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900
- 4682 $\frac{13920}{5}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 2, fig. 20.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900
- 4683 $\frac{13920}{6}$ TYPE Ruedemann. New York state museum bulletin 42.
1901. pl. 2, fig. 22, 23.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900
- 4684 $\frac{13920}{7}$ TYPE? PLASTOTYPE? Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 24, 25.
Lower Utica shale Mechanicville N. Y.
R. Ruedemann, coll. 1900
On slab with type of pl. 2, fig. 19.

PRIMITIA Jones

Primitia clarkei Jones

- 4685 $\frac{13940}{1}$ TYPE *Primitia clarkei* Jones. Quarterly journal of the Geological society of London. 1890. 46:535, pl. 20, fig. 11.
Onondaga limestone (drift)
Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

Primitia mundula Miller *var. jonesi* Ruedemann

- 4686 $\frac{13941}{1}$ TYPE *Primitia mundula* Miller *var. jonesi* Ruedemann. New York state museum bulletin 49. 1901. p. 80, pl. 7, fig. 2.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

- 4687 $\frac{13941}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 3, 4.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4688 $\frac{13941}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 5.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Problematic crustacean

- 4689 $\frac{13960}{1}$ TYPE Problematic crustacean Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 20, 21.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4690 $\frac{13960}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 22, 23.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

On slab with type of *Isotelus cf. maximus*, Bull. 49, pl. 4, fig. 1.

- 4691 $\frac{13960}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 24, 25.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

PROËTUS Steininger**Proëtus** sp.? Hall & Clarke

- 4692 $\frac{13980}{1}$ TYPE *Proëtus* sp.? Hall & Clarke. Paleontology of New York. 1888. 7:94, pl. 22, fig. 5.

Schoharie grit

Schoharie, Schoharie co. N. Y.

J. Gebhard purchase

- 4693 $\frac{13980}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 6.

Schoharie grit

Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862.

Proëtus angustifrons Hall

- 4694 $\frac{13981}{1}$ TYPE *Proëtus angustifrons* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 70.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 22, fig. 1.

Schoharie grit

Schoharie N. Y.

J. Gebhard purchase

- 4695 $\frac{13981}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 22, fig. 2.

Schoharie grit

Clarksville, Albany co. N. Y.

J. M. Clarke purchase

- 4696 $\frac{13981}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 22, fig. 3.

Schoharie grit

Near Clarksville N. Y.

J. M. Clarke purchase

Proëtus auriculatus see *Proëtus missouriensis*

Proëtus canaliculatus Hall

- 4697 $\frac{13982}{1}$ TYPE *Proëtus canaliculatus* Hall. Descriptions of new species of fossils of the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 73.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 23, fig. 10, 11.

Onondaga limestone

Falls of the Ohio, Ky.

Proëtus clarus Hall

- 4698 $\frac{13983}{1}$ TYPE *Proëtus clarus* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 71.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 22, fig. 28.

Onondaga limestone

DeCewville Ont.

- 4699 $\frac{13983}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 22, fig. 29.

Onondaga limestone

Lime Rock, Genesee co. N. Y.

J. M. Clarke, coll. 1888

Proëtus conradi Hall

- 4700 $\frac{13984}{1}$ TYPE *Proëtus conradi* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 69.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 22, fig. 4.

Schoharie grit Schoharie, Schoharie co. N. Y.

J. Gebhard purchase

4701 $\frac{13984}{2}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 2, fig. 11.

Oriskanian Becraft mountain, Hudson N. Y.

4702 $\frac{13984}{3}$ HYPOTYPE:HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 2, fig. 12.

Oriskanian Becraft mountain, Hudson N. Y.

4703 $\frac{13984}{4}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 2, fig. 13.

Oriskanian Becraft mountain, Hudson N. Y.

4704 $\frac{13984}{5}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 2, fig. 14.

Oriskanian Becraft mountain, Hudson N. Y.

4705 $\frac{13984}{6}$ HYPOTYPE:HYPOPLASTOTYPE Clarke. New York state
museum memoir 3. 1900. pl. 2, fig. 15.

Oriskanian Becraft mountain, Hudson N. Y.

4706 $\frac{13984}{7}$ HYPOTYPE Clarke. New York state museum memoir 3.
1900. pl. 2, fig. 16.

Oriskanian Becraft mountain, Hudson N. Y.

Proëtus corycoeus Conrad (sp.)

4707 $\frac{13985}{1}$ HYPOTYPE Asaphus corycoeus Conrad. Journal of
the Academy of natural sciences of Philadelphia. 1842.
8:277.

Proëtus corycoeus Hall. Paleontology of New
York. 1852. v. 2, pl. 67, fig. 15.

Rochester shale Lockport, Niagara co. N. Y.

Proëtus crassimarginatus Hall

4708 $\frac{13986}{1}$ HYPOTYPE Calymene crassimarginata Hall.
Geology of New York; report on the 4th district. 1843.
p. 173.

Proëtus crassimarginatus Hall. Illustrations
of Devonian fossils. 1876. Crustacea, pl. 20, fig. 5.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 20, fig. 6.

Schoharie grit Near Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

- 4709 $\frac{13986}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 20, fig. 23, 24.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 20, fig. 23, 24.
Onondaga limestone Clarence, Erie co. N. Y.
C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860.
- 4710 $\frac{13986}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 20, fig. 27.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 20, fig. 27.
Onondaga limestone Cayuga Ont.
J. De Cew, coll. 1866.
- 4711 $\frac{13986}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 22, fig. 20.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862.
- 4712 $\frac{13986}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 22, fig. 21.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862.
- 4713 $\frac{13986}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 22, fig. 23.
Onondaga limestone Falls of the Ohio, Ky.
- 4714 $\frac{13986}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 22, fig. 26.
Onondaga limestone Williamsville, Erie co. N. Y.
- Proëtus curvimarginatus** Hall & Clarke
- 4715 $\frac{13987}{1}$ TYPE *Proëtus curvimarginatus* Hall & Clarke.
Paleontology of New York. 1888. 7:94, pl. 22, fig. 13.
Schoharie grit Pendleton, Madison co. Ind.
C. D. Walcott and C. Van Deloo, coll. 1878.
- 4716 $\frac{13987}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 22, fig. 14, 15.
Schoharie grit Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878.
- 4717 $\frac{13987}{3}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New
York. 1888. v. 7, pl. 22, fig. 16.
Schoharie grit Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878.

- 4718 $\frac{13987}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 22, fig. 17.

Schoharie grit

Pendleton Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

- 4719 $\frac{13987}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 22, fig. 18, 19.

Schoharie grit

Pendleton Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Proëtus davenportensis see *Proëtus prouti*

***Proëtus delphinulus* Hall & Clarke**

- 4720 $\frac{13988}{1}$ PLASTOTYPE *Proëtus delphinulus* Hall & Clarke.
Paleontology of New York. 1888. 7:111, pl. 23, fig. 1, 2;
pl. 25, fig. 6.

Onondaga limestone

North Cayuga Ont.

***Proëtus folliceus* Hall & Clarke**

- 4721 $\frac{13989}{1}$ TYPE *Proëtus folliceus* Hall & Clarke. Paleon-
tology of New York. 1888. 7:101, pl. 23, fig. 3, 4, 8.

Onondaga limestone

Leroy, Genesee co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

- 4722 $\frac{13989}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 23, fig. 5.

Onondaga limestone

Near Leroy N. Y.

- 4723 $\frac{13989}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 23, fig. 6, 7.

Onondaga limestone (chert in drift)

Ann Arbor Mich.

C. Rominger, donor

***Proëtus haldemani* Hall**

- 4724 $\frac{13990}{1}$ HYPOPLASTOTYPE *Proëtus haldemani* Hall. De-
scriptions of new species of fossils from the upper Helder-
berg, Hamilton and Chemung groups. 1861. p. 74.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 23, fig. 13.

Devonic limestone

Rescue hill, Eureka district, Nev.

***Proëtus hesione* Hall**

- 4725 $\frac{13991}{1}$ PLASTOTYPE *Proëtus hesione* Hall. Descriptions of
new species of fossils from the Upper Helderberg, Hamil-
ton and Chemung groups. 1861. p. 70.

Hall. Illustrations of Devonian fossils. 1876. Crus-
tacea, pl. 20, fig. 15, 16.

Hall. Paleontology of New York. 1888. v. 7, pl. 20, fig. 15, 16.

Schoharie grit

Schoharie N. Y.

Proëtus latimarginatus Hall & Clarke

4726 $\frac{13992}{1}$ TYPE *Proëtus latimarginatus* Hall & Clarke. Paleontology of New York. 1888. 7:97, pl. 22, fig. 7.

Schoharie grit

Pendleton, Madison co. Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

4727 $\frac{13992}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 8.

Schoharie grit

Pendleton Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

4728 $\frac{13992}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 9.

Schoharie grit

Pendleton Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

4729 $\frac{13992}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 10.

Schoharie grit

Pendleton Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

4730 $\frac{13992}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 11.

Schoharie grit

Pendleton Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

4731 $\frac{13992}{6}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 12.

Schoharie grit

Pendleton Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Proëtus (?) longicaudus Hall

4732 $\frac{13993}{1}$ PLASTOTYPE *Proëtus longicaudus* Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 108, pl. 10, fig. 7-9.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 20, fig. 32-34.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 20, fig. 32-34.

Hamilton beds? (Carboniferous?)

Des Moines Ia.

Rev. Mr Nash, donor

Proëtus macrobius see *Cordania macrobius*

Proëtus macrocephalus Hall

- 4733 $\frac{13994}{1}$ TYPE *Proëtus macrocephalus* Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 77.
Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 10.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 10.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858
- 4734 $\frac{13994}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 14.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 14.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 4735 $\frac{13994}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 17.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 17.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858
- 4736 $\frac{13994}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 18.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 18.
Hamilton beds Western New York
- 4737 $\frac{13994}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 19.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 19.
Hamilton beds North Bristol, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
- 4738 $\frac{13994}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 30.
Hamilton beds Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

- 4739 $\frac{13994}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 31.

Hamilton beds Menteth's point, Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Proëtus marginalis see *Proëtus nevadae*

Proëtus marginalis see *Proëtus rowi*

***Proëtus microgemma* Hall & Clarke**

- 4740 $\frac{13995}{1}$ TYPE *Proëtus microgemma* Hall & Clarke. Paleontology of New York. 1888. 7:109, pl. 22, fig. 33.

Onondaga limestone Phelps, Ontario co. N. Y.
J. M. Clarke, coll. 1886

- 4741 $\frac{13995}{2}$ TYPE? PLASTOTYPE? (?) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 34.

Onondaga limestone Canandaigua N. Y.
J. M. Clarke purchase

***Proëtus missouriensis* Shumard**

- 4742 $\frac{13996}{1}$ HYPOTYPE *Proëtus missouriensis* Shumard. Geological report of Missouri. 1855. p. 196.

Proëtus auriculatus Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 79 (not figured).

Proëtus missouriensis Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 32.

Waverly beds Licking county, O.

***Proëtus nevadae* Hall & Clarke**

- 4743 $\frac{13997}{1}$ PLASTOTYPE *Proëtus marginalis* (Conrad) Walcott. Monograph of the United States geological survey. 1884. v. 8; Paleontology of the Eureka district, p. 210.

Proëtus nevadae Hall & Clarke. Paleontology of New York. 1888. 7:129, pl. 23, fig. 19.

Devonic Comb's peak, Eureka district, Nev.

***Proëtus ovifrons* Hall & Clarke**

- 4744 $\frac{13998}{1}$ TYPE *Proëtus ovifrons* Hall & Clarke. Paleontology of New York. 1888. 7:110, pl. 22, fig. 31.

Onondaga limestone (drift)

Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

- 4745 $\frac{13998}{2}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 32.

Onondaga limestone (drift)

Canandaigua N. Y.

J. M. Clarke purchase

Proëtus phocion Billings

- 4746 $\frac{13999}{1}$ PLASTOTYPE *Proëtus phocion* Billings. Paleozoic fossils of Canada. 1874. v. 2, pt 1, p. 63, pl. 1, fig. 31.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 25, fig. 10.

Grand Grève limestone Indian Cove, Gaspé, Quebec

Proëtus (?) planimarginatus Meek

- 4747 $\frac{14000}{1}$ PLASTOTYPE *Proëtus planimarginatus* Meek. Proceedings of the Academy of natural sciences of Philadelphia. 1871. p. 89.

Meek. Paleontology of Ohio. 1873. v. 1, pl. 23, fig. 3a, 3b.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 23, fig. 12.

Onondaga limestone

Sylvania, Lucas co. O.

Proëtus protuberans Hall

- 4748 $\frac{14001}{1}$ TYPE *Proëtus protuberans* Hall. Paleontology of New York. 1859. 3:351, pl. 73, fig. 5.

Coeymans limestone

Schoharie county, N. Y.

Proëtus prouti Shumard

- 4749 $\frac{14002}{1}$ PLASTOTYPE *Proëtus prouti* Shumard. Transactions of the St Louis academy of sciences. 1863. v. 2, no. 1, p. 110.

Proëtus davenportensis Barris. Proceedings of the Davenport academy of natural sciences. 1879. v. 2, pl. 11, fig. 8.

Proëtus prouti Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 16, 17.

Hamilton beds

Davenport, Scott co. Ia.

Proëtus rowi Green (sp.)

- 4750 $\frac{14003}{1}$ PLASTOTYPE *Calymene rowi* Green. American journal of science and arts. 1838. 33:406.

Proëtus rowi Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 4.

- Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 21, fig. 4.
Hamilton beds Otsego county, N. Y.
- 4751 $\frac{14003}{2}$ HYPOPLASTOTYPE Hall. Illustrations of Devonian fossils.
1876. Crustacea, pl. 21, fig. 5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 21, fig. 5.
Hamilton beds Otsego county, N. Y.
- 4752 $\frac{14003}{3}$ HYPOTYPE *Calymene marginalis* Conrad. Annual
report on the paleontology of New York. 1839. p. 66.
Proëtus marginalis Hall. Illustrations of De-
vonian fossils. 1876. Crustacea, pl. 21, fig. 24.
Proëtus rowi Hall & Clarke. Paleontology of New
York. 1888. v. 7, pl. 21, fig. 24.
Tully limestone Near Ovid, Seneca co. N. Y.
J. Gebhard purchase
- 4753 $\frac{14003}{4}$ HYPOTYPE *Proëtus marginalis*? Hall. Illustrations
of Devonian fossils. 1876. Crustacea, pl. 21, fig. 25, 26.
Proëtus rowi Hall & Clarke. Paleontology of
New York. 1888. v. 7, pl. 21, fig. 25, 26; pl. 23, fig. 27.
Tully limestone Near Ovid N. Y.
J. Gebhard purchase
- 4754 $\frac{14003}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 23, fig. 20.
Hamilton beds Centerfield, Ontario co. N. Y.
J. M. Clarke purchase
- 4755 $\frac{14003}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 23, fig. 22.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
- 4756 $\frac{14003}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 23, fig. 23.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
On slab with type of *Turrilepas tenera*, Pal. N. Y. v. 7,
pl. 36, fig. 9, 11, 13.
- 4757 $\frac{14003}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York.
1888. v. 7, pl. 23, fig. 24.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4758 $\frac{14003}{9}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 25.

Hamilton beds (drift) Ann Arbor Mich.

4759 $\frac{14003}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 26.

Hamilton beds Centerfield N. Y.

J. M. Clarke purchase

4760 $\frac{14003}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 29.

Hamilton beds Centerfield N. Y.

J. M. Clarke purchase

Proëtus stenopyge Hall & Clarke

4761 $\frac{14004}{1}$ TYPE *Proëtus stenopyge* Hall & Clarke. Paleontology of New York. 1888. 7:110, pl. 22, fig. 27.

Onondaga limestone Phelps, Ontario co. N. Y.

J. M. Clarke, coll. 1886

PSEUDONISCUS Nieszkowski

Pseudoniscus roosevelti Clarke

4762 $\frac{14020}{1}$ TYPE *Pseudoniscus roosevelti* Clarke. Annual report of the New York state paleontologist. 1901. p. 89, pl. 1, fig. 1.

Salina beds Town of Pittsford, Monroe co. N. Y.

C. J. Sarle purchase

4763 $\frac{14020}{2}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 1.

Salina beds Town of Pittsford N. Y.

C. J. Sarle purchase

4764 $\frac{14020}{3}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 2.

Salina beds Town of Pittsford N. Y.

C. J. Sarle purchase

4765 $\frac{14020}{4}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 3.

Salina waterlime Jerusalem hill, Herkimer co. N. Y.

J. M. Clarke and R. Ruedemann, coll. 1900

PSEUDOSPHAEREXOCHUS Schmidt

Pseudosphaerexochus trentonensis Clarke

- 4766 $\frac{14040}{1}$ TYPE *Pseudosphaerexochus trentonensis* Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 735, fig. 53, 54.
Trenton limestone Trenton Falls, Oneida co. N. Y.
W. P. Rust purchase

PTERYGOMETOPUS Schmidt

Pterygometopus eboraceus Clarke

- 4767 $\frac{14060}{1}$ TYPE *Pterygometopus eboraceus* Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 728, fig. 48.
Trenton limestone Rawlins Mills, Saratoga co. N. Y.
W. P. Rust purchase

- 4768 $\frac{14060}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 15.
Trenton conglomerate Rysedorph hill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

PTERYGOTUS Agassiz

Pterygotus buffaloensis Pohlman

- 4769 $\frac{14080}{1}$ HYPOTYPE *Pterygotus buffaloensis* Pohlman. Buffalo society of natural history bulletin. 1883. 4:17.
Clarke. Eastman's Zittel. Textbook of paleontology. 1900. v. 1, pt 2, p. 678, fig. 1425.
Rondout waterlime Buffalo N. Y.
Ward and Howell purchase

Ptychoparia trilineata see *Conocoryphe trilineata*

Ptychoparia trilineata see *Solenopleura* ?
nana

REMOPLEURIDES Portlock

Remopleurides (Caphyra) linguatus Ruedemann

- 4770 $\frac{14100}{1}$ TYPE *Remopleurides (Caphyra) linguatus* Ruedemann. New York state museum bulletin 49. 1901. p. 56, pl. 3, fig. 21-23.
Trenton conglomerate Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

- 4771 $\frac{14100}{2}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 3, fig. 24, 25.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4772 $\frac{14100}{3}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 3, fig. 26.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4773 $\frac{14100}{4}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 3, fig. 27 and 21 (in part).
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 4774 $\frac{14100}{5}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 3, fig. 28, 29.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Remopleurides tumidus Ruedemann

- 4775 $\frac{14101}{1}$ TYPE *Remopleurides tumidus* Ruedemann.
New York state museum bulletin 49. 1901. p. 56, pl. 4,
fig. 2-4.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

RHINOCARIS Clarke**Rhinocaris (?) bipennis** Clarke

- 4776 $\frac{14120}{1}$ TYPE *Rhinocaris (?) bipennis* Clarke. 15th annual
report of the New York state geologist. 1898. p. 69,
fig. 1.
Clarke. Annual report of the New York state paleon-
tologist. 1901. pl. 4, fig. 9.
Ithaca beds De Ruyter, Madison co. N. Y.
J. M. Clarke, coll.
- 4777 $\frac{14120}{2}$ TYPE Clarke. 15th annual report of the New York state
geologist. 1898. p. 69, fig. 2.
Ithaca beds De Ruyter N. Y.
J. M. Clarke, coll.

Rhinocaris capsella Hall & Clarke

- 4778 $\frac{14121}{1}$ TYPE *Elymocariscapsella* Hall & Clarke. Paleon-
tology of New York. 1888. 7:181, pl. 31, fig. 4.
Hamilton beds Tichenor's gully,
Canandaigua lake, N. Y.
J. M. Clarke purchase

- 4779 $\frac{14121}{2}$ **HYPOTYPE** *Rhinocaris capsella* Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 12.

Ithaca beds Hake's ravine, Pitcher N. Y.
D. D. Luther, coll. 1900

- 4780 $\frac{14121}{3}$ **HYPOTYPE** Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 13.

Ithaca beds Pharsalia Hook, Chenango co. N. Y.
D. D. Luther, coll. 1900

***Rhinocaris columbina* Clarke**

- 4781 $\frac{14122}{1}$ **TYPE** *Rhinocaris columbina* Clarke. Paleontology of New York. 1888. 7:195, pl. 31, fig. 16, 17.

Hamilton beds Tichenor's gully, Ontario co. N. Y.
J. M. Clarke, coll. 1886

- 4782 $\frac{14122}{2}$ **TYPE: PLASTOTYPE** Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 18.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

- 4783 $\frac{14122}{3}$ **TYPE** Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 19.

Hamilton beds Vinegar brook glen, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

- 4784 $\frac{14122}{4}$ **TYPE** Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 20.

Hamilton beds Tichenor's gully, N. Y.
J. M. Clarke purchase

- 4785 $\frac{14122}{5}$ **TYPE** Clarke. American naturalist. 1893. 27:795, fig. 2.

Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke, donor

- 4786 $\frac{14122}{6}$ **HYPOTYPE** Clarke. American naturalist. 1893. 27:797, fig. 4.

Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke, donor

***Rhinocaris columbina* var. *livonensis* Clarke**

- 4787 $\frac{14123}{1}$ **TYPE** *Rhinocaris columbina* var. *livonensis* Clarke. Annual report of the New York state paleontologist. 1901. p. 97, pl. 4, fig. 14.

Hamilton shales Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

4788 $\frac{14123}{2}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 15.

Hamilton shales

Livonia salt shaft, N. Y.

D. D. Luther, coll. 1891

4789 $\frac{14123}{3}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 16.

Hamilton shales

Livonia salt shaft, N. Y.

D. D. Luther, coll. 1891

Rhinocaris hamiltoniae Hall & Clarke

4790 $\frac{14124}{1}$ TYPE: PLASTOTYPE *Tropidocaris hamiltoniae* Hall & Clarke. Paleontology of New York. 1888. v. 7, explanation of pl. 30, fig. 24, 25.

Hamilton beds

Tichenor's gully,

Canandaigua lake, N. Y.

J. M. Clarke purchase

Rhinocaris scaphoptera Clarke

4791 $\frac{14125}{1}$ TYPE *Rhinocaris scaphoptera* Clarke. Paleontology of New York. 1888. 7:197, pl. 31, fig. 22, 23.

Hamilton beds

Tichenor's gully, N. Y.

J. M. Clarke, coll. 1886

4792 $\frac{14125}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 10.

Ithaca beds

Canasawacta creek, Norwich N. Y.

D. D. Luther, coll. 1900

4793 $\frac{14125}{3}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 11.

Ithaca beds

Buttermilk falls ravine, near

South New Berlin, Chenango co. N. Y.

D. D. Luther, coll. 1900

Rhinocaris veneris Hall & Clarke

4794 $\frac{14126}{1}$ TYPE *Mesothyra* (*Dithyrocaris*?) *veneris* Hall & Clarke. Paleontology of New York. 1888. 7:193, pl. 33, fig. 3.

Marcellus shale

Mud creek, East Bloomfield,

Ontario co. N. Y.

J. M. Clarke purchase

SCHIZODISCUS Clarke

Schizodiscus capsa Clarke

- 4795 $\frac{14140}{1}$ TYPE: PLASTOTYPE *Schizodiscus capsa* Clarke.
Paleontology of New York. 1888. 7:209, pl. 35, fig. 1, 2.
Hamilton beds Near Centerfield, Ontario co. N. Y.
J. M. Clarke purchase
- 4796 $\frac{14140}{2}$ TYPE: PLASTOTYPE Clarke. Paleontology of New York.
1888. v. 7, pl. 35, fig. 3, 4.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase
- 4797 $\frac{14140}{3}$ TYPE Clarke. Paleontology of New York. 1888. v. 7,
pl. 35, fig. 5.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase
- 4798 $\frac{14140}{4}$ TYPE Clarke. Paleontology of New York. 1888. v. 7,
pl. 35, fig. 6.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase
- 4799 $\frac{14140}{5}$ TYPE Clarke. Paleontology of New York. 1888. v. 7,
pl. 35, fig. 7, 8.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase
- 4800 $\frac{14140}{6}$ TYPE Clarke. Paleontology of New York. 1888. v. 7,
pl. 35, fig. 9.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase

SCHMIDTELLA Ulrich

Schmidtella crassimarginata Ulrich*var. ventrilabiata* Ruedemann

- 4801 $\frac{14160}{1}$ TYPE *Schmidtella crassimarginata* Ulrich var.
ventrilabiata Ruedemann. New York state museum
bulletin 49. 1901. p. 75, pl. 7, fig. 12-14.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900
- 4802 $\frac{14160}{2}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 7, fig. 16-18.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

SOLENOPLEURA Angelin

Solenopleura ? nana Ford

- 4803 $\frac{14180}{1}$ TYPE *Solenopleura nana* Ford. American journal of science, ser. 3. 1878. 15:126 (not figured).

Lower Cambrian

Troy N. Y.

S. W. Ford purchase

- 4804 $\frac{14180}{2}$ HYPOTYPE *Solenopleura nana* Ford. American journal of science, ser. 3. 1878. 15:126.

Ptychoparia trilineata Walcott. United States geological survey bulletin 30. 1886. pl. 27, fig. 1b.

Solenopleura ? nana Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 98, fig. 1e.

Lower Cambrian

Lansingburg, Rensselaer co. N. Y.

S. W. Ford purchase

SPATHIOCARIS Clarke

Spathiocaris emersoni Clarke

- 4805 $\frac{14200}{1}$ TYPE *Spathiocaris emersoni* Clarke. American journal of science, ser. 3. 1882. 23:477, pl., fig. 3.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 12.

Portage (Naples) beds

Naples, Ontario co. N. Y.

J. M. Clarke purchase

- 4806 $\frac{14200}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 13.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

- 4807 $\frac{14200}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 14.

Portage (Naples) beds

Naples N. Y.

- 4808 $\frac{14200}{4}$ TYPE Clarke. American journal of science, ser. 3. 1882. v. 23, pl., fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 15.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

- 4809 $\frac{14200}{5}$ TYPE Clarke. American journal of science, ser. 3. 1882. v. 23, pl., fig. 2.

Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 35, fig. 16.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

4810 $\frac{14200}{6}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 17.

Portage (Naples) beds Sparta, Livingston co. N. Y.

J. M. Clarke purchase

4811 $\frac{14200}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 18.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

4812 $\frac{14200}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 19.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke purchase

SPHAEROCORYPHE Angelin

Sphaerocoryphe major Ruedemann

4813 $\frac{14220}{1}$ TYPE *Sphaerocoryphe major* Ruedemann. New York state museum bulletin 49. 1901. p. 67, pl. 4, fig. 13.

Trenton conglomerate

Rysedorph hill,

Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

Sphaerocoryphe robusta Walcott

4814 $\frac{14221}{1}$ HYPOTYPE *Sphaerocoryphe robustus* Walcott. Cincinnati quarterly journal of science. 1875. 2:273.

Ruedemann. New York state museum bulletin 49.

1901. pl. 4, fig. 14.

Trenton limestone

Trenton Falls, Oneida co. N. Y.

W. P. Rust purchase

STROBILEPIS Clarke

Strobilepis spinigera Clarke

4815 $\frac{14240}{1}$ TYPE *Strobilepis spinigera* Clarke. Paleontology of New York. 1888. 7:212, pl. 36, fig. 20-22.

Hamilton beds

Menteth's point, Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

STYLONURUS Page

Stylonurus excelsior Hall

- 4816 $\frac{14260}{1}$ PLASTOTYPE *Stylonurus excelsior* Hall. 36th annual report of the New York state museum of natural history. 1883. p. 77, pl. 5, fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 26, fig. 1.

Catskill sandstone Andes, Delaware co. N. Y.

- 4817 $\frac{14260}{2}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 26a, fig. 1-3.

Catskill sandstone Meshoppen, Wyoming co. Pa.

Stylonurus (?) wrightianus Dawson (sp.)

- 4818 $\frac{14261}{1}$ PLASTOTYPE *Equisetides wrightianus* Dawson. Quarterly journal of the Geological society of London. 1881. 37:301, pl. 12, fig. 10; pl. 13, fig. 20.

Equisetides (Stylonurus) wrightianus Hall. 35th annual report of the New York state museum of natural history. 1884. pl. 15, fig. 1, 2.

Echinocaris wrightiana Jones & Woodward. Geological magazine. 1884. Decade 3, v. 1, no. 9, pl. 13, fig. 1a and b.

Stylonurus (?) (Echinocaris?) wrightianus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 27, fig. 7-9.

Portage beds Italy, Yates co. N. Y.

TRETASPIS McCoy

Tretaspis diademata Ruedemann

- 4819 $\frac{14280}{1}$ TYPE *Tretaspis diademata* Ruedemann. New York state museum bulletin 49. 1901. p. 46, pl. 3, fig. 12-14.

Trenton conglomerate Rysedorph hill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

Tretaspis reticulata Ruedemann

- 4820 $\frac{14281}{1}$ TYPE *Tretaspis reticulata* Ruedemann. New York state museum bulletin 49. 1901. p. 41, pl. 3, fig. 11.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

- 4821 $\frac{14281}{2}$ TYPE Ruedemann. New York state museum bulletin 49-
1901. pl. 3, fig. 15-17.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4822 $\frac{14281}{3}$ TYPE Ruedemann. New York state museum bulletin 49-
1901. pl. 3, fig. 18-20.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Trimerus delphinocephalus see *Homalonotus*
(*Trimerus*) *delphinocephalus*

TRINUCLEUS Lhwyd

Trinucleus concentricus Eaton (sp.)

- 4823 $\frac{14300}{1}$ HYPOPLASTOTYPE (Plastotype of Green's species) *Nuttainia*
concentrica Eaton. Textbook of geology. 1832.
p. 128.

Cryptolithus tessellatus Green. Monograph of
the trilobites of North America. 1832. p. 73. Original
cast no. 28.

Lorraine beds

Near Waterford N. Y.

Albany Institute, donor

TROPIDOCARIS Beecher

Tropidocaris alternata Beecher

- 4824 $\frac{14320}{1}$ PLASTOTYPE *Tropidocaris alternata* Beecher.
Second geological survey of Pennsylvania, PPP. 1884.
p. 19, pl. 2, fig. 7.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 31, fig. 14.

Waverly beds

Warren Pa.

Tropidocaris bicarinata Beecher

- 4825 $\frac{14321}{1}$ PLASTOTYPE *Tropidocaris bicarinata* Beecher.
Second geological survey of Pennsylvania, PPP. 1884.
p. 16, pl. 2, fig. 3.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 31, fig. 7, 9.

Chemung beds

Warren Pa.

- 4826 $\frac{14321}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York
1888. v. 7, pl. 31, fig. 8, 10.

Chemung beds

Warren Pa.

Tropidocaris hamiltoniae see *Rhinocaris hamiltoniae*

***Tropidocaris interrupta* Beecher**

- 4827 $\frac{14322}{1}$ PLASTOTYPE *Tropidocaris interrupta* Beecher. Second geological survey of Pennsylvania, PPP. 1884. p. 18, pl. 2, fig. 6.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 13.
Chemung beds Warren Pa.

TURRILEPAS Woodward

***Turrilepas cancellata* Hall & Clarke**

- 4828 $\frac{14340}{1}$ TYPE *Turrilepas cancellatus* Hall & Clarke. Paleontology of New York. 1888. 7:216, pl. 36, fig. 2.
Onondaga limestone Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

***Turrilepas devonica* Clarke**

- 4829 $\frac{14341}{1}$ TYPE *Turrilepas devonicus* Clarke. American journal of science, ser. 3. 1882. 24:55, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 3.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

***Turrilepas* (?) *filosa* Ruedemann**

- 4830 $\frac{14342}{1}$ TYPE *Turrilepas* (?) *filosus* Ruedemann. New York state museum bulletin 42. 1901. p. 577, pl. 2, fig. 13, 14.
Lower Utica shale Mechanicville, Saratoga co. N. Y.
R. Ruedemann, coll. 1900
- 4831 $\frac{14342}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 15.
Lower Utica shale Mechanicville N. Y.
R. Ruedemann, coll. 1900

***Turrilepas flexuosa* Hall & Clarke**

- 4832 $\frac{14343}{1}$ TYPE *Turrilepas flexuosus* Hall & Clarke. Paleontology of New York. 1888. 7:215, pl. 36, fig. 1.
Onondaga limestone Near Canandaigua N. Y.
J. M. Clarke purchase

Turrilepas foliata Hall & Clarke

- 4833 $\frac{14344}{1}$ TYPE *Turrilepas foliatus* Hall & Clarke. Paleontology of New York. 1888. 7:218, pl. 36, fig. 15.
Hamilton beds Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

Turrilepas (?) newberryi Whitfield (sp.)

- 4834 $\frac{14345}{1}$ PLASTOTYPE *Plumulites newberryi* Whitfield. Annals of the New York Academy of sciences. 1882. 2:217.

Turrilepas (?) newberryi Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 17.
Cleveland shale Sheffield, Erie co. O.

- 4835 $\frac{14345}{2}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 19.
Cleveland shale Sheffield O.

Turrilepas nitidula Hall & Clarke

- 4836 $\frac{14346}{1}$ TYPE *Turrilepas nitidulus* Hall & Clarke. Paleontology of New York. 1888. 7:218, pl. 36, fig. 4.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

Turrilepas squama Hall & Clarke

- 4837 $\frac{14347}{1}$ TYPE *Turrilepas squama* Hall & Clarke. Paleontology of New York. 1888. 7:217, pl. 36, fig. 5.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

- 4838 $\frac{14347}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 6.
Hamilton beds Centerfield, Ontario co. N. Y.
J. M. Clarke purchase

- 4839 $\frac{14347}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 7.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

- 4840 $\frac{14347}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 8.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

Turrilepas tenera Hall & Clarke

- 4841 $\frac{14348}{1}$ TYPE *Turrilepas tenera* Hall & Clarke. Paleontology of New York. 1888. 7:219, pl. 36, fig. 9, 11, 13.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
On slab with *Proetus rowi*, pl. 23, fig. 23.
- 4842 $\frac{14346}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 36, fig. 10.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase
- 4843 $\frac{14348}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 36, fig. 12.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

PISCES

BOTHRIOLEPIS Eichwald

Bothriolepis leidy (?) Newberry

- 4844 $\frac{16000}{1}$ HYPOTYPE? *Bothriolepis leidy* Newberry. United States geological survey monograph 16. 1889. p. 111.
(?) Eastman. 17th annual report of the New York state geologist. 1899. p. 324 (not figured).
Catskill sandstone Ontario & Western railroad tunnel
between Merrickville and North
Walton, Delaware co. N. Y.
C. S. Prosser, coll. 1897

Bothriolepis minor Newberry

- 4845 $\frac{16001}{1}$ HYPOTYPE *Bothriolepis minor* Newberry. United States geological survey monograph 16. 1889. p. 112.
Eastman. 17th annual report of the New York state geologist. 1899. p. 325, fig. 5 (outline).
Catskill sandstone Ontario & Western railroad tunnel
between Merrickville and North
Walton, N. Y.
C. S. Prosser, coll. 1899
- 4846 $\frac{16001}{2}$ HYPOTYPE Eastman. 17th annual report of the New York state geologist. 1899. p. 325, fig. 5.
Catskill sandstone Ontario & Western railroad tunnel
between Merrickville and North
Walton, N. Y.
C. S. Prosser, coll. 1899

Coccosteus (?) *halmodeus* *see* *Dinichthys halmodeus*

DINICHTHYS Newberry

***Dinichthys* sp. Eastman**

- 4847 $\frac{16020}{1}$ **HYPOTYPE** *Dinichthys* sp. Eastman. 17th annual report of the New York state geologist. 1899. p. 320, fig. 1.
Chemung beds Franklin station, Delaware co. N. Y.
C. S. Prosser, coll. 1897
- 4848 $\frac{16020}{2}$ **HYPOTYPE** *Dinichthys* sp. Eastman. 17th annual report of the New York state geologist. 1899. p. 326, fig. 6.
Catskill sandstone Kaaterskill creek above Palenville, Delaware co. N. Y.
C. S. Prosser, coll. 1897

***Dinichthys halmodeus* Clarke (sp.)**

- 4849 $\frac{16021}{1}$ **TYPE** *Coccosteus* (?) *halmodeus* Clarke. 13th annual report of the New York state geologist. 1894. 1:161, pl. 1, fig. 1.
Marcellus shale Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891
- 4850 $\frac{16021}{2}$ **TYPE** Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 1, fig. 2.
Marcellus shale Livonia salt shaft, N. Y.
D. D. Luther, coll. 1891

***Dinichthys lincolni* Claypole**

- 4851 $\frac{16022}{1}$ **TYPE** *Dinichthys lincolni* Claypole. American geologist. 1893. 12:275; 276, fig. 2, 3.
Marcellus shale Geneva, Ontario co. N. Y.
D. F. Lincoln, donor

***Dinichthys newberryi* Clarke**

- 4852 $\frac{16023}{1}$ **TYPE** (of description; dorso-median plate) *Dinichthys newberryi* Clarke. United States geological survey bulletin 16. 1885. p. 17 (19).
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

HOLOPTYCHIUS Agassiz

Holoptychius americanus Leidy

- 4853 $\frac{16040}{1}$ HYPOTYPE *Holoptychius americanus* Leidy.
Journal of the Academy of natural sciences of Philadelphia, ser. 2. 1856. 3:159.

Eastman. 17th annual report of the New York state geologist. 1899. p. 321 (not figured).

Chemung beds

Jefferson, Delaware co. N. Y.

C. S. Prosser, coll. 1897

Holoptychius halli Newberry

- 4854 $\frac{16041}{1}$ TYPE (2 specimens) *Holoptychius halli* Newberry.
United States geological survey monograph 16. 1889.
p. 114, pl. 20, fig. 10, 10a.

Catskill sandstone

Delhi, Delaware co. N. Y.

Rev. Mr Fitch, donor

Ichthyodorulite see *Machaeracanthus sulcatus*

MACHAERACANTHUS Newberry

Machaeracanthus sulcatus Newberry

- 4855 $\frac{16060}{1}$ TYPE *Ichthyodorulite* Hall. Geology of New York; report on the 4th district. 1843. p. 174, fig. 69.

Machaeracanthus sulcatus Newberry. National institute bulletin. 1857. p. 6 (no figure given).

Newberry. Geological survey of Ohio. 1873. v. 1, pt 2; Paleontology, p. 305 (no figure given).

Onondaga limestone

Victor, Ontario co. N. Y.

Geological survey collection

ONCHUS Agassiz

Onchus rectus Eastman

- 4856 $\frac{16080}{1}$ TYPE *Onchus rectus* Eastman. 17th annual report of the New York state geologist. 1899. p. 323, fig. 4.

Catskill sandstone

Ontario and Western railroad tunnel between Merrickville and North Walton, Delaware co. N. Y.

C. S. Prosser, coll. 1897

PALAEONISCUS Agassiz**Palaeoniscus devonicus** Clarke

4857 $\frac{16120}{1}$ TYPE *Palaeoniscus devonicus* Clarke. United States geological survey bulletin 16. 1885. p. 41, pl. 1, fig. 4.

Portage (Naples) beds Sparta, Livingston co. N. Y.
J. M. Clarke, donor

PRISTACANTHUS Agassiz**Pristacanthus vetustus** Clarke

4858 $\frac{16120}{1}$ PLASTOTYPE *Pristacanthus vetustus* Clarke. United States geological survey bulletin 16. 1885. p. 42, pl. 1, fig. 7.

Portage (Naples) beds Near Milo, Yates co. N. Y.
J. M. Clarke, donor

SUPPLEMENTARY LIST TO FEBRUARY 1903

PLANTAE

CLADOXYLON Unger

Cladoxylon mirabile Unger

- 4859 $\frac{170}{1}$ TYPE (of description) *Cladoxylon mirabile* (Unger)
 Dawson. Fossil plants of the Erian and Silurian of
 Canada, pt 2. 1882. p. 126.
 Clarke. United States geological survey bulletin 16.
 1885. p. 26.
 Genesee shale (Styliola limestone)

Canandaigua lake, N. Y.

J. M. Clarke, donor

THAMNOCLADUS White

Thamnocladus clarkei White

- 4860 $\frac{420}{1}$ TYPE *Thamnocladus clarkei* White. New York
 state museum bulletin 52; annual report of the state pale-
 ontologist. 1902. p. 596, pl. 3, fig. 1.
 Chemung beds East Windsor, Broome co. N. Y.
 E. B. Hall, donor
 On slab with type of pl. 4, fig. 1.
- 4861 $\frac{420}{2}$ TYPE White. New York state museum bulletin 52; annual
 report of the state paleontologist. 1902. pl. 4, fig. 1.
 Chemung beds East Windsor N. Y.
 E. B. Hall, donor
 On slab with type of pl. 3, fig. 1.

COELENTERATA

SPONGIAE

ARYSTIDICTYA Hall & Clarke

Arystidictya elegans Hall & Clarke

- 4862 $\frac{2081}{1}$ PLASTOTYPE *Arystidictya elegans* Hall & Clarke.
 New York state museum memoir 2. 1898. p. 136, pl. 41,
 fig. 10 and pl. 42, fig. 7.
 Lower Chemung beds Cotton hill, near Avoca,
 Steuben co. N. Y.

BOTRYODICTYA Hall & Clarke

Botryodictya ramosa Lesquereux (sp.)

- 4863 $\frac{2100}{2}$ HYPOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 13, fig. 8.
Chemung beds Lawrenceville, Tioga co. Pa.
A. Sherwood, coll.

CALATHOSPONGIA Hall & Clarke

Calathospongia (?) magnifica Hall & Clarke

- 4864 $\frac{2123}{1}$ PLASTOTYPE Calathospongia (?) magnifica Hall
& Clarke. New York state museum memoir 2. 1898.
p. 182, pl. 56, fig. 5.
Keokuk group Crawfordsville Ind.
- 4865 $\frac{2123}{2}$ PLASTOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 57, fig. 1.
Keokuk group Crawfordsville Ind.

CERATODICTYA Hall & Clarke

Ceratodictya cincta Hall (sp.)

- 4866 $\frac{2143}{2}$ PLASTOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 22, fig. 7, 8.
Chemung beds Erie Pa.

CRYPTODICTYA Hall

Cryptodictya-allenī Hall

- 4867 $\frac{2220}{2}$ PLASTOTYPE Hall & Clarke. New York state museum
memoir 2. 1898. pl. 31, fig. 5.
Chemung beds Lyndon, Cattaraugus co. N. Y.
- Dictyophyton morini *see* Dictyospongia morini

DICTYOSPONGIA Hall & Clarke

Dictyospongia morini Barrois (sp.)

- 4868 $\frac{2266}{1}$ PLASTOTYPE Dictyophyton morini Barrois. Annales
de la Societ  Geologique du Nord. 1883. 11:83, pl. 1,
fig. 2a-c.
- Dictyospongia morini Hall & Clarke. New
York state museum memoir 2. 1898. pl. 46, fig. 1, 2.
Psammites du Condroz Jeumont, France

HYDROCERAS Conrad

Hydnoceras hypastrum Hall & Clarke

- 4869 $\frac{2332}{1}$ PLASTOTYPE *Hydnoceras hypastrum* Hall & Clarke. New York state museum memoir 2. 1898. p. 105, pl. 7, fig. 1.
Chemung beds Steuben county, N. Y.

Hydnoceras jeumontense Hall & Clarke

- 4870 $\frac{2333}{1}$ PLASTOTYPE *Hydnoceras jeumontense* Hall & Clarke. New York state museum memoir 2. 1898. p. 148, pl. 46, fig. 5.
Psammites du Condroz Jeumont, France
- 4871 $\frac{2333}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 46, fig. 6.
Psammites du Condroz Jeumont, France

Hydnoceras tuberosum Conrad

- 4872 $\frac{2329}{10}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 7, fig. 3.
Chemung beds Brown hill, near Cohocton, Steuben co. N. Y.

HYPHANTAENIA Vanuxem

Hypantaenia chemungensis Vanuxem (sp.)

- 4873 $\frac{2360}{4}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 29, fig. 1.
Chemung beds Near Owego, Tioga co. N. Y.

PRISMODICTYA Hall & Clarke

Prismodictya cercidea Hall & Clarke

- 4874 $\frac{2487}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. p. 89, pl. 20, fig. 2.
Chemung beds Wellsville, Allegany co. N. Y.

Prismodictya corynia Hall & Clarke

- 4875 $\frac{2496}{1}$ PLASTOTYPE *Prismodictya corynia* Hall & Clarke. New York state museum memoir 2. 1898. p. 86, pl. 17, fig. 11.
Chemung beds Wellsville N. Y.

RHABDOSISPONGIA Hall & Clarke

Rhabdosispongia condroziana Hall & Clarke.

- 4876 $\frac{2501}{1}$ PLASTOTYPE *Rhabdosispongia condroziana*
Hall & Clarke. New York state museum memoir 2.
1898. p. 149, pl. 47, fig. 1.
Psammites du Condroz Jeumont, France

CNIDARIA

BOLBOPORITES Pander

Bolboporites americanus Billings

- 4877 $\frac{3080}{2}$ HYPOTYPE *Ruedemann*. New York state museum bulletin 49.
1901. pl. 1, fig. 1.
Trenton conglomerate (Chazy limestone pebble)
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

CLIMACOGRAPTUS Hall

Climacograptus scharenbergi Lapworth

- 4878 $\frac{3190}{1}$ HYPOTYPE *Climacograptus scharenbergi* Lap-
worth in Armstrong, Young & Robertson's Catalogue of
west Scottish fossils. 1876. p. 140.
Ruedemann. New York state museum bulletin 42.
1901. pl. 1, fig. 1.
Ruedemann. New York state museum bulletin 49.
1901. pl. 3, fig. 1.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900
On slab with *Ampyx hastatus* Ruedemann. N. Y. state
mus. bul. 49, pl. 3, fig. 1.

CLONOGRAPTUS Hall

Clonograptus (Goniograptus) sp. nov. Ruedemann

- 4879 $\frac{3205}{1}$ TYPE *Clonograptus (Goniograptus) sp. nov.*
Ruedemann. New York state museum bulletin 52; annual
report of the state paleontologist. 1902. p. 582, fig. 12.
Beekmantown graptolite shale
Deep kill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1901

COENOGRAPTUS Hall

Coenograptus gracilis Hall

- 4880 $\frac{3210}{1}$ HYPOTYPE Graptolithus gracilis Hall. Paleontology of New York. 1847. 1:274.

Coenograptus gracilis Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 583, fig. 13.

Normanskill graptolite shale

Mt Moreno,

Columbia co. N. Y.

R. Ruedemann, coll. 1900

DIDYMOGRAPTUS McCoy

Didymograptus (Leptograptus) sp. nov. Ruedemann

- 4881 $\frac{3321}{1}$ TYPE Didymograptus (Leptograptus) sp. nov. Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 589, fig. 17.

Beekmantown graptolite shale

Deep kill,

Rensselaer co. N. Y.

R. Ruedemann, coll. 1901

Diplograptus ruedemanni see Diplograptus ruedemanni

DIPLOGRAPTUS McCoy

Diplograptus foliaceus Murchison (sp.)

- 4882 $\frac{3340}{2}$ HYPOTYPE Ruedemann. American journal of science. 1895. 49:455, fig. 1.

Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 1.

Utica shale

Dolgeville, Herkimer co. N. Y.

R. Ruedemann purchase

- 4883 $\frac{3340}{3}$ HYPOTYPE Ruedemann. American journal of science. 1895. 49:455, fig. 4.

Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 5.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

- 4884 $\frac{3340}{4}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 8.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

- 4885 $\frac{3340}{5}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 9.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4886 $\frac{3340}{6}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 18.
- 4887 $\frac{3340}{7}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 1.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4888 $\frac{3340}{8}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 2.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 3-3b, 5, 6.
- 4889 $\frac{3340}{9}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 3-3b.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 2, 5 and 6.
- 4890 $\frac{3340}{10}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 4.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 12.
- 4891 $\frac{3340}{11}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 5.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 2, 3-3b, 6.
- 4892 $\frac{3340}{12}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 2, 3-3b, 5.

- 4893 $\frac{3340}{13}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 7, 7a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4894 $\frac{3340}{14}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 8.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4895 $\frac{3340}{15}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 9, 9a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 10.
- 4896 $\frac{3340}{16}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 9, 9a.
- 4897 $\frac{3340}{17}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 11.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4898 $\frac{3340}{18}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 12.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 4.
- 4899 $\frac{3340}{19}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 13.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4900 $\frac{3340}{20}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 14.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4901 $\frac{3340}{21}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 15.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

- 4902 $\frac{3340}{22}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 16.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4903 $\frac{3340}{23}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 17.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4904 $\frac{3340}{24}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 18.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 2, fig. 6.
- 4905 $\frac{3340}{25}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 19.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4906 $\frac{3340}{26}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 20.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4907 $\frac{3340}{27}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 21, 21a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4908 $\frac{3340}{28}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 22, 22a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4909 $\frac{3340}{29}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 23, 23a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4910 $\frac{3340}{30}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 24.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

- 4911 $\frac{3340}{31}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 25.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4912 $\frac{3340}{32}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 26.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- Diplograptus pristiniformis* see *Diplograptus ruedemanni*
- Diplograptus ruedemanni* Gurley (sp.)**
- 4913 $\frac{3350}{1}$ TYPE *Diplograpsis ruedemanni* Gurley. Journal of geology. 1896. 4:307.
Diplograptus pristiniformis (Hall) Ruedemann. American journal of science. 1895. 49:455, fig. 2.
Diplograptus ruedemanni Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 2.
Utica shale Dolgeville, Herkimer co. N. Y.
R. Ruedemann purchase
- 4914 $\frac{3350}{2}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 3.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4915 $\frac{3350}{3}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 4916 $\frac{3350}{4}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 7.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- On slab with type of pl. 2, fig. 1, 2.
- 4917 $\frac{3350}{5}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

- 4918 $\frac{3350}{6}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 1.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
 On slab with type of pl. 1, fig. 7 and pl. 2, fig. 2.
- 4919 $\frac{3350}{7}$ TYPE *Diplograptus pristiniiformis* (Hall) Ruedemann. American journal of science. 1895. 49:455, fig. 3.
Diplograptus ruedemanni Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 2.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
 On slab with type of pl. 1, fig. 7 and pl. 2, fig. 1.
- 4920 $\frac{3350}{8}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 3.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
- 4921 $\frac{3350}{9}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 4.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
- 4922 $\frac{3350}{10}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 5.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase

GONIOGRAPTUS McCoy

Goniograptus thureau McCoy var. *postremus* Ruedemann

- 4923 $\frac{3430}{1}$ TYPE *Goniograptus thureau* McCoy var. *postremus* Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 580; 577, fig. 1.
 Beekmantown graptolite shale.
 Deep kill, Rensselaer co. N. Y.
 R. Ruedemann, coll. 1902
- 4924 $\frac{3430}{2}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 577, fig. 2.
 Beekmantown graptolite shale Deep kill, N. Y.
 R. Ruedemann, coll. 1902

- 4925 $\frac{3430}{3}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 577,
fig. 3.
Beekmantown graptolite shale. Deep kill, N. Y.
R. Ruedemann, coll. 1901
- 4926 $\frac{3430}{4}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 578,
fig. 4.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901
- 4927 $\frac{3430}{5}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 578,
fig. 5.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901
- 4928 $\frac{3430}{6}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 578,
fig. 6.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901
- 4929 $\frac{3430}{7}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 578,
fig. 7.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901
- 4930 $\frac{3430}{8}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 578,
fig. 8.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901
- 4931 $\frac{3430}{9}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 579,
fig. 9.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901
- 4932 $\frac{3430}{10}$ TYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 579,
fig. 10.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

- 4933 $\frac{3430}{11}$ TYPE . Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 580, fig. 11.

Beekmantown graptolite shale Deep kill, N. Y.

R. Ruedemann, coll. 1901

Graptolithus bigsbyi see *Tetragraptus bigsbyi*

Graptolithus fruticosus see *Tetragraptus fruticosus*

Graptolithus gracilis see *Coenograptus gracilis*

PHYLLOGRAPTUS Hall

Phyllograptus ilicifolius Hall

- 4934 $\frac{3610}{1}$ HYPOTYPE *Phyllograptus ilicifolius* Hall. Geological survey of Canada; report for 1858. p. 139.

Ruedemann. New York state museum bulletin 52 annual report of the state paleontologist. 1902. p. 590, fig. 19.

Beekmantown graptolite shale

Deep kill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1901

SYRINGOPORA Goldfuss

Syringopora infundibulum Whitfield

- 4935 $\frac{3810}{1}$ HYPOTYPE *Syringopora infundibula* Whitfield. Geological survey of Wisconsin; annual report. 1877. p. 79.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 1, fig. 6-9.

Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby, Orleans co. N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

TETRADIUM Dana

Tetradium cellulosum Hall (sp.)

- 4936 $\frac{3820}{2}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 1.

Lowville limestone

Ingham's Mills, East Canada creek, N. Y.

R. Ruedemann purchase

- 4937 $\frac{3820}{3}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 2.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4938 $\frac{3820}{4}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 3.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4939 $\frac{3820}{5}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 4.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
On slab with type of pl. 5, fig. 5.
- 4940 $\frac{3820}{6}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 5.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
On slab with type of pl. 5, fig. 4.
- 4941 $\frac{3820}{7}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 6a, 6b.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4942 $\frac{3820}{8}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 7.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4943 $\frac{3820}{9}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 8.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4944 $\frac{3820}{10}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 9.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4945 $\frac{3820}{11}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 10.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

- 4946 $\frac{3820}{12}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 11.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4947 $\frac{3820}{13}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 12.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4948 $\frac{3820}{14}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 13.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4949 $\frac{3820}{15}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 14a, 14b.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4950 $\frac{3820}{16}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 15.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
- 4951 $\frac{3820}{17}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22,
pl. 5, fig. 16a, 16b.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

TETRAGRAPTUS Salter

Tetragraptus bigsbyi Hall (sp.)

- 4952 $\frac{3830}{1}$ HYPOTYPE Graptolithus bigsbyi Hall. Geológicoal
survey of Canada; report for 1858. p. 140.
Tetragraptus bigsbyi Ruedemann. New York
state museum bulletin 52; annual report of the state paleon-
tologist. 1902. p. 590, fig. 18a.
Beekmantown graptolite shale
Deep kill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1901
- 4953 $\frac{3830}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. p. 590,
fig. 18b.
Beekmantown graptolite shale
Deep kill, N. Y.
R. Ruedemann, coll. 1901

Tetragraptus fruticosus Hall

- 4954 $\frac{3831}{1}$ HYPOTYPE *Graptolithus fruticosus* Hall. Geological survey of Canada; report for 1858. p. 128.

Tetragraptus fruticosus Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 588, fig. 15.

Beekmantown graptolite shale Deep kill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1902

Tetragraptus taraxacum Ruedemann

- 4955 $\frac{3832}{1}$ TYPE *Tetragraptus taraxacum* Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 589, fig. 16.

Beekmantown graptolite shale Deep kill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1902

ECHINODERMATA**AGELACRINITES Vanuxem****Agelacrinites beecheri Clarke**

- 4956 $\frac{4002}{1}$ 2 PLASTOTYPES *Agelacrinites beecheri* Clarke. New York state museum bulletin 49. 1901. p. 195, fig. 4, 6.
Lower Carbonic Warren Pa.

Agelacrinites buttsi Clarke

- 4957 $\frac{4003}{1}$ TYPE: PLASTOTYPE *Agelacrinites buttsi* Clarke. New York state museum bulletin 49. 1901. p. 196, pl. 10, fig. 7-9.

Suprasedevonic sandstone (Cattaraugus beds)

Mt Moriah, Cattaraugus co. N. Y.

- 4958 $\frac{4003}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum bulletin 49. 1901. p. 197, fig. 7.

Lower Carbonic

Warren Pa.

Agelacrinites hamiltonensis Vanuxem

- 362 $\frac{4000}{1}$ TYPE: PLASTOTYPE *Agelacrinites hamiltonensis* Vanuxem. Geology of New York; report on the 3d district. 1842. p. 158; p. 306, fig. 80.

Clarke. New York state museum bulletin 49. 1901.
pl. 10, fig. 6.

Hamilton beds

Hamilton, Madison co. N. Y.

LEPIDODISCUS Meek & Worthen

Lepidodiscus alleganius Clarke

4959 $\frac{4285}{1}$ TYPE: PLASTOTYPE *Lepidodiscus alleganius*
Clarke. New York state museum bulletin 49. 1901.
p. 194, pl. 10, fig. 1.

Chemung sandstones

Loose at Alfred,
Allegany co. N.Y.

Ward purchase

4960 $\frac{4285}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum bul-
letin 49. 1901. pl. 10, fig. 2.

Chemung sandstones

Loose at Belvidere,
Allegany co. N. Y.

On slab with type of pl. 10, fig. 5.

4961 $\frac{4285}{3}$ PLASTOTYPE Clarke. New York state museum bulletin 49.
1901. pl. 10, fig. 3.

Chemung sandstones

2 miles north of Sabinsville,
Tioga co. Pa.

4962 $\frac{4285}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum bul-
letin 49. 1901. pl. 10, fig. 4.

Chemung sandstones

Loose at Alfred N. Y.

Ward purchase

4963 $\frac{4285}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum bul-
letin 49. 1901. pl. 10, fig. 5.

Chemung sandstones

Loose at Belvidere N. Y.

On slab with type of pl. 10, fig. 2.

LYRIOCRINUS Hall

Lyriocrinus melissa Hall

4964 $\frac{4287}{1}$ HYPOTYPE *Rhodocrinus melissa* Hall. Transac-
tions of the Albany Institute. 1863. 4:198 (abstract p. 4).

Lyriocrinus melissa Hall. 11th annual report
of the Indiana state geologist. 1882. pl. 15, fig. 11.

Niagaran

Waldron, Shelby co. Ind.

C. D. Walcott & C. Van Deloo, coll. 1878

PENTREMITES Say

Pentremites whitei Hall

- 4965 $\frac{4430}{1}$ TYPE *Pentremites whitei* Hall. 15th annual report of the New York state cabinet of natural history. 1862 p. 150.

Hamilton beds Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860.

- 4966 $\frac{4430}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 150.

Hamilton beds Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860.

Rhodocrinus melissa see *Lyriocrinus melissa*.

VERMES

CORNULITES Schlotheim

Cornulites arcuatus Conrad

- 4967 $\frac{5090}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Cornulites arcuatus* Conrad. Journal of the Academy of natural sciences. 1842. 8:276.

Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 105, pl. 4, fig. 2.

Lower Shelby dolomite Near Shelby, Orleans co. N. Y.

R. Ruedemann and D. D. Luther, coll. 1902.

- 4968 $\frac{5090}{2}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 4.

Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby N. Y.

D. D. Luther, coll. 1901.

PLANOLITES Nicholson

Planolites clarkii Prosser

- 4969 $\frac{5150}{1}$ TYPE *Planolites clarkii* Prosser. 17th annual report of the New York state geologist. 1899. p. 149, pl. 6.

Hamilton beds 4 miles south of East Worcester N. Y.

BRYOZOA

Alecto inflata *see* *Stomatopora inflata*

BYTHOPORA Miller & Dyer

Bythopora spinulosa Hall (sp.)

4970 $\frac{6070}{1}$ HYPOTYPE *Trematopora spinulosa* Hall. Paleontology of New York. 1852. 2:155.

Bythopora spinulosa Grabau. New York state museum bulletin 45. 1901. p. 166, fig. 64.

Rochester shale Middleport, Niagara co. N. Y.

On slab with *Chilotrypa ostiolata*, New York state museum bulletin 45, p. 164, fig. 60.

POLYPORA McCoy

Polypora eudora Hall

4971 $\frac{6711}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 8-10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 8-10.

New Scotland beds Near Clarksville, Albany co. N. Y.

On slab with type of *Fenestella adraste*, Pal. N. Y. v. 6, pl. 20, fig. 20, 21.

STOMATOPORA Bronn

Stomatopora inflata Hall (sp.)

4972 $\frac{6905}{1}$ HYPOTYPE *Alecto inflata* Hall. Paleontology of New York. 1847. 1:77.

Stomatopora inflata Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 2.

Trenton conglomerate

Rysedorph hill,

Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

4973 $\frac{6905}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 3.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Trematopora spinulosa *see* *Bythopora spinulosa*

BRACHIOPODA

AMBOCOELIA Hall

Ambocoelia nana Grabau

- 4974 $\frac{7043}{1}$ **HYPOTYPE** *Ambocoelia umbonata* var. *nana* Grabau. 16th annual report of the New York state geologist. 1899. p. 276.

Ambocoelia nana Wood. New York state museum bulletin 49. 1901. p. 165, pl. 9, fig. 21-23.

Marcellus (Stafford) limestone Lancaster, Erie co. N. Y.

E. Wood, donor

Ambocoelia umbonata var. *nana* see *Ambocoelia nana*

Atrypa cuneata see *Rhynchotretra cuneata*

CAMAROTOECHIA Hall & Clarke

Camarotoechia (?) *indianensis* Hall

- 4975 $\frac{7215}{7}$ **HYPOTYPE: HYPOPLASTOTYPE** Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 26, 27.

Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby, Orleans co. N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Camarotoechia pauciplicata Wood

- 4976 $\frac{7222}{1}$ **TYPE** *Camarotoechia pauciplicata* Wood. New York state museum bulletin 49. 1901. p. 162, pl. 9, fig. 7-9.

Marcellus (Stafford) limestone Genesee county, N. Y.

E. Wood, donor

- 4977 $\frac{7222}{2}$ **TYPE** Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 10-12.

Marcellus (Stafford) limestone Plumbottom creek, Lancaster, Erie co. N. Y.

E. Wood, donor

Camarotoechia prolifica ? Hall

- 4978 $\frac{7223}{1}$ **HYPOTYPE?** *Stenoschisma prolificum* Hall. Paleontology of New York. 1867. 4:343.

Camarotoechia prolifica ? Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 13-15.

Marcellus (Stafford) limestone Plumbottom creek, Lancaster N. Y.

E. Wood, donor

CHONETES Fischer de Waldheim

Chonetes scitulus Hall

- 4979 $\frac{7256}{4}$ HYPOTYPE Wood. New York state museum bulletin 49.
1901. pl. 9, fig. 4.

Marcellus (Stafford) limestone

Cayuga creek, Lancaster N. Y.

E. Wood, donor

- 4980 $\frac{7256}{5}$ HYPOTYPE Wood. New York state museum bulletin 49.
1901. pl. 9, fig. 5, 6.

Marcellus (Stafford) limestone

Cayuga creek, Lancaster N. Y.

E. Wood, donor

CHRISTIANIA Hall & Clarke

Christiania trentonensis Ruedemann

- 4981 $\frac{7275}{1}$ TYPE *Christiania trentonensis* Ruedemann. New
York state museum bulletin 49. 1901. p. 21, pl. 2,
fig. 2, 3.

Trenton conglomerate

Rysedorph hill,

Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

- 4982 $\frac{7275}{2}$ TYPE: PLASTOTYPE Ruedemann. New York state museum
bulletin 49. 1901. pl. 2, fig. 4.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

- 4983 $\frac{7275}{3}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 2, fig. 5, 6.

Trenton conglomerate

Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

CRANIA Retz

Crania recta Wood

- 4984 $\frac{7325}{1}$ TYPE *Crania recta* Wood. New York state museum
bulletin 49. 1901. p. 157, pl. 9, fig. 1.

Marcellus (Stafford) limestone

Lancaster, Erie co. N. Y.

E. Wood, donor

On slab with type of pl. 9, fig. 2, 3.

- 4985 $\frac{7325}{2}$ TYPE Wood. New York state museum bulletin 49. 1901.
pl. 9, fig. 2.

Marcellus (Stafford) limestone

Lancaster N. Y.

E. Wood, donor

On slab with type of pl. 9, fig. 1, 3.

- 4986 $\frac{7325}{3}$ TYPE Wood. New York state museum bulletin 49. 1901.
 pl. 9, fig. 3.
 Marcellus (Stafford) limestone Lancaster N. Y.
 E. Wood, donor
 On slab with type of pl. 9, fig. 1, 2.

EUNOA Clarke

Eunoa accola Clarke

- 4987 $\frac{7515}{1}$ TYPE *Eunoa accola* Clarke. New York state museum
 bulletin 52; annual report of the state paleontologist.
 1902. p. 607, pl. 5.
 Beekmantown graptolite shale Deep kill,
 Rensselaer co. N. Y.
 R. Ruedemann, coll. 1901
- 4988 $\frac{7515}{2}$ TYPE Clarke. New York state museum bulletin 52; annual
 report of the state paleontologist. 1902. pl. 6, fig. 1.
 Beekmantown graptolite shale Deep kill, N. Y.
 R. Ruedemann, coll. 1901
- 4989 $\frac{7515}{3}$ TYPE Clarke. New York state museum bulletin 52; annual
 report of the state paleontologist. 1902. pl. 6, fig. 2.
 Beekmantown graptolite shale Deep kill, N. Y.
 R. Ruedemann, coll. 1901
- Leptaena aspera* *see* *Plectambonites sericeus*
var. asper

MONOMERELLA Billings

Monomerella noveboracum Clarke & Ruedemann

- 4990 $\frac{7825}{1}$ TYPE: PLASTOTYPE *Monomerella noveboracum*
 Clarke & Ruedemann. New York state museum memoir 5.
 1902. p. 39, pl. 2, fig. 1.
 Lower Shelby dolomite Near Shelby, Orleans co. N. Y.
 R. Ruedemann and D. D. Luther, coll. 1902
- 4991 $\frac{7825}{2}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state
 museum memoir 5. 1902. pl. 2, fig. 2, pl. 4, fig. 38.
 Lower Shelby dolomite Near Shelby N. Y.
 R. Ruedemann and D. D. Luther, coll. 1902
- 4992 $\frac{7825}{3}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state
 museum memoir 5. 1902. pl. 2, fig. 3.
 Lower Shelby dolomite Near Shelby N. Y.
 R. Ruedemann and D. D. Luther, coll. 1902

- 4993 $\frac{7825}{4}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 4.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 4994 $\frac{7825}{5}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 5.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 4995 $\frac{7825}{8}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 6.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 4996 $\frac{7825}{7}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 1, 2.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 4997 $\frac{7825}{8}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 3.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 4998 $\frac{7825}{9}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 4, 5.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 4999 $\frac{7825}{10}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 7.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

ORBICULOIDEA d'Orbigny

Orbiculoidea magnifica Clarke

- 5000 $\frac{7896}{1}$ TYPE: PLASTOTYPE *Orbiculoidea magnifica* Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 615; fig. facing p. 614.
Portage beds Tannery gully, Naples, Ontario co. N. Y.
D. D. Luther, coll. 1901
- 5001 $\frac{7896}{2}$ TYPE Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. pl. 7.
Portage beds Tannery gully, Naples N. Y.
D. D. Luther, coll. 1901

- 5002 $\frac{7896}{3}$ PLASTOTYPE Clarke. New York state museum bulletin 52;
annual report of the state paleontologist. 1902. pl. 8.
Ithaca beds Truxton, Cortland co. N. Y.
Rev. H. A. Riley, donor

PLECTAMBONITES Pander

Plectambonites pisum Ruedemann

- 5003 $\frac{8041}{1}$ TYPE *Plectambonites pisum* Ruedemann. New
York state museum bulletin 49. 1901. p. 19, pl. 1, fig. 8, 9.
Trenton conglomerate Rysedorph hill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1900
- 5004 $\frac{8041}{2}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 1, fig. 10, 11.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 5005 $\frac{8041}{3}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 1, fig. 12, 13.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 5006 $\frac{8041}{4}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 1, fig. 14.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 5007 $\frac{8041}{5}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 1, fig. 15.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 5008 $\frac{8041}{6}$ TYPE: PLASTOTYPE Ruedemann. New York state museum
bulletin 49. 1901. pl. 1, fig. 16.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 5009 $\frac{8041}{7}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 1, fig. 17, 18.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
- 5010 $\frac{8041}{8}$ TYPE Ruedemann. New York state museum bulletin 49.
1901. pl. 1, fig. 19.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

- 5011 $\frac{8041}{9}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 20.

Trenton conglomerate

Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Plectambonites sericeus Sowerby (sp.) *var. asper* James

- 5012 $\frac{8042}{1}$ HYPOTYPE *Leptaena aspera* James. Cincinnati quarterly journal of science. 1874. 1:151.

Plectambonites sericeus Sowerby *var. asper* Ruedemann. New York state museum bulletin 49. 1901. p. 18, pl. 1, fig. 6.

Trenton conglomerate

Rysedorph hill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

- 5013 $\frac{8042}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 7.

Trenton conglomerate

Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

RAFINESQUINA Hall & Clarke

Rafinesquina alternata Conrad (sp.)

- 5014 $\frac{8140}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 2, fig. 1.

Trenton conglomerate

Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

RHYNCHOTRETA Hall

Rhynchotreta cuneata Dalman (sp.) *var. americana* Hall

- 5015 $\frac{8220}{8}$ HYPOTYPE *Rhynchotreta cuneata var. americana* Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 23-25.

Upper Shelby dolomite

Oak Orchard creek, 2 miles
south of Shelby, Orleans co. N. Y.

R. Ruedemann and D. D. Luther coll. 1902

SIPHONOTRETA de Verneuil

Siphonotreta minnesotensis Hall & Clarke

- 5016 $\frac{8325}{1}$ HYPOTYPE *Siphonotreta minnesotensis* Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 177.

Ruedemann. New York state museum bulletin 49.
1901. pl. 1, fig. 4, 5.

Trenton conglomerate

Rysedorph hill,

Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

SPIRIFER Sowerby

Spirifer cf. bicostatus (Vanuxem) Hall

5017 $\frac{8366}{1}$ HYPOTYPE *Spirifer bicostatus* Hall. Paleontology
of New York. 1852. 2:263.

Spirifer cf. bicostatus Clarke & Ruedemann.
New York state museum memoir 5. 1902. pl. 4, fig. 22.

Upper Shelby dolomite Oak Orchard creek, 2 miles
south of Shelby, Orleans co. N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Spirifer crispus Hisinger (sp.)

5018 $\frac{8338}{2}$ HYPOTYPE *Clarke & Ruedemann*. New York state museum
memoir 5. 1902. pl. 4, fig. 10.

Upper Shelby dolomite Oak Orchard creek, 2 miles
south of Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5019 $\frac{8338}{3}$ HYPOTYPE *Clarke & Ruedemann*. New York state museum
memoir 5. 1902. pl. 4, fig. 11, 19, 20.

Upper Shelby dolomite Oak Orchard creek,
2 miles south of Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Stenoschisma prolificum see *Camarotoechia*
prolifca ?

LAMELLIBRANCHIATA

Amnigenia catskillensis see *Archanodon*
catskillensis

ARCHANODON Newton

Archanodon catskillensis Vanuxem (sp.)

5020 $\frac{9045}{1}$ HYPOTYPE *Cypriocardites catskillensis* Vanuxem.
Geology of New York; report on the 3d district. 1842.
p. 186.

Amnigenia catskillensis Clarke. New York
state museum bulletin 49. 1901. pl. 11.

Oneonta sandstone

Oxford, Chenango co. N. Y.

E. E. Davis, donor

Astarte subtextilis *see* *Euthydesma subtextilis*

Avicula fragile *see* *Lunulicardium fragile*

Avicula speciosa *see* *Buchiola speciosa*

Avicula supлана *see* *Pterinea subplana*

Avicula undata *see* *Pterinea undata*

BUCHIOLA Barande

Buchiola speciosa Hall (sp.)

5021 $\frac{2080}{1}$ HYPOTYPE *Avicula speciosa* Hall. Geology of New York; report on the 4th district. 1843. p. 243.

Glyptocardia speciosa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 2.

Genesee shale Bristol Center, Ontario co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

5022 $\frac{2080}{2}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 3.

Genesee shale Bristol Center N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

5023 $\frac{2080}{3}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 9.

Marcellus shale Near Skaneateles, Onondaga co. N. Y.

W. M. Gabb, coll. 1857

5024 $\frac{2080}{4}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 10.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Cardiomorpha suborbicularis *see* *Edmondia ? tenuistriata*

Cardiomorpha subtextilis *see* *Euthydesma subtextile*

Cardiomorpha textilis *see* *Euthydesma subtextile*

Cypriocardites catskillensis *see* *Archanodon catskillensis*

EDMONDIA de Koninck

Edmondia ? tenuistriata Hall

(= *Ungulina suborbicularis* Hall (sp.))

5025 $\frac{2195}{1}$ TYPE *Cardiomorpha suborbicularis* Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 9, 10.

Edmondia ? tenuistriata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 393, pl. 63, fig. 9, 10.

Portage (Naples) beds (Erroneously stated to be from the Chemung, Elmira N. Y.)

J. W. Hall and C. Van Deloo, coll. 1866

EUTHYDESMA Hall

Euthydesma subtextile Hall

5026 $\frac{2215}{1}$ HYPOTYPE *Astarte subtextilis* Hall. Geology of New York; report on the 4th district. 1843. p. 245.

Cardiomorpha subtextilis Hall. Preliminary notice of lamellibranchiata, pt 2. 1870. p. 93.

Cardiomorpha textilis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 14, 15.

Euthydesma subtextile Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 14, 15; pl. 93, fig. 29.

Portage beds Barcelona, Chautauqua co. N. Y.

5027 $\frac{2215}{2}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 28.

Portage beds Barcelona N. Y.

Glyptocardia speciosa see *Buchiola speciosa*

LEPTODESMA Hall

Leptodesma marcellense Hall

5028 $\frac{2357}{1}$ HYPOTYPE *Leptodesma marcellense* Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 175.

Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 16.

Marcellus (Stafford) limestone Plumbottom creek
Lancaster, Erie co. N. Y.

5029 $\frac{2357}{2}$ HYPOTYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 17.

Marcellus (Stafford) limestone Plumbottom creek,
Lancaster N. Y.
E. Wood, donor

LUNULICARDIUM Münster

Lunulicardium fragile Hall

- 5030 $\frac{2401}{8}$ HYPOTYPE Wood. New York state museum bulletin 49.
1901. pl. 9, fig. 18.

Marcellus (Stafford) limestone Plumbottom creek,
Lancaster N. Y.
E. Wood, donor

- 5031 $\frac{2401}{9}$ HYPOTYPE Wood. New York state museum bulletin 49.
1901. pl. 9, fig. 19.

Marcellus (Stafford) limestone Plumbottom creek,
Lancaster N. Y.

MYTILARCA Hall

Mytilarca acutirostrum Hall (sp.)

- 5032 $\frac{2550}{2}$ HYPOTYPE *Mytilarca acutirostrum* Clarke &
Ruedemann. New York state museum memoir 5. 1902.
pl. 5, fig. 11.

Lower Shelby dolomite Near Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

- 5033 $\frac{2550}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum
memoir 5. 1902. pl. 5, fig. 12.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

PTERINEA Goldfuss

Pterinea subplana Hall (sp.)

- 5034 $\frac{2760}{1}$ HYPOTYPE *Avicula subplana* Hall. Paleontology of
New York. 1852. 2:283.

Pterinea subplana Clarke & Ruedemann. New
York state museum memoir 5. 1902. pl. 5, fig. 4.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Pterinea undata Hall (sp.)

- 5035 $\frac{2761}{1}$ HYPOTYPE *Avicula undata* Hall. Paleontology of
New York. 1852. 2:283.

Pterinea undata Clarke & Ruedemann. New
York state museum memoir 5. 1902. pl. 5, fig. 6.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

GASTROPODA

BELLEROPHON Montfort

Bellerophon shelbiensis Clarke & Ruedemann

- 5036 $\frac{10017}{1}$ TYPE *Bellerophon shelbiensis* Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 51, pl. 5, fig. 13.

Lower Shelby dolomite Near Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

- 5037 $\frac{10017}{2}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 14, 18.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

- 5038 $\frac{10017}{3}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 15.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

- 5039 $\frac{10017}{4}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 16, 17.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

- 5040 $\frac{10017}{5}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 19.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

COELIDIUM Clarke & Ruedemann

Coelidium macrospira Hall (sp.)

- 5041 $\frac{10035}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Murchisonia macrospira* Hall. Paleontology of New York. 1852. 2:346.

Coelidium macrospira Clarke & Ruedemann.
New York state museum memoir 5. 1902. pl. 10, fig. 13.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

DIAPHOROSTOMA Fischer

Diaphorostoma niagarensis Hall (sp.)

- 5042 $\frac{10111}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Platyostoma niagarensis* Hall. Paleontology of New York. 1852. 2:287.

Diaphorostoma niagarens Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 16.

Upper Shelby dolomite Oak Orchard creek, 2 miles
south of Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

EOTOMARIA Ulrich

Eotomaria galtensis Billings (sp.)

5043 $\frac{10125}{1}$ HYPOTYPE *Pleurotomaria galtensis* Billings.
Paleozoic Fossils. 1862. 1:154.

Eotomaria galtensis Clarke & Ruedemann.
New York state museum memoir 5. 1902. pl. 10, fig. 10-12.

Upper Shelby dolomite Oak Orchard creek, 2 miles
south of Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

LOPHOSPIRA Whitfield

Lophospira bispiralis Hall (sp.)

5044 $\frac{10155}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Pleurotomaria bispiralis* Hall. Paleontology of New York. 1852. 2:348.

Lophospira bispiralis Clarke & Ruedemann.
New York state museum memoir 5. 1902. pl. 10, fig. 6.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Murchisonia macrospira see *Coelidium macrospira*

Platyostoma niagarens see *Diaphorostoma niagarens*

Pleurotomaria bispiralis see *Lophospira bispiralis*

Pleurotomaria galtensis see *Eotomaria galtensis*

POLEUMITA Clarke & Ruedemann

Poleumita crenulata Whiteaves (sp.)

5045 $\frac{10410}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Straparollus crenulatus* Whiteaves. Paleozoic Fossils. 1884. v. 3, pt 2, p. 21.

Poleumita crenulata Clarke & Ruedemann.
New York state museum memoir 5. 1902. pl 9, fig. 16.
Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5046 $\frac{10410}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann.
New York state museum memoir 5. pl. 9, fig. 21.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Straparollus crenulatus *see* *Poleumita crenulata*

TREMATONOTUS Hall

Trematonotus alpheus Hall

5047 $\frac{10560}{1}$ HYPOTYPE *Trematonotus alpheus* Hall. Separately
printed in advance of 18th annual report of New York
state cabinet of natural history. 1865. p. 43.

Trematonotus alpheus Clarke & Ruedemann.
New York state museum memoir 5. 1902. pl. 5, fig. 21, 23.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5048 $\frac{10560}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New
York state museum memoir 5. 1902. pl. 6, fig. 2.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5049 $\frac{10560}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum
memoir 5. 1902. pl. 6, fig. 3.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5050 $\frac{10560}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New
York state museum memoir 5. 1902. pl. 6, fig. 4.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5051 $\frac{10560}{5}$ HYPOTYPE Clarke & Ruedemann. New York state museum
memoir 5. 1902. pl. 6, fig. 5.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5052 $\frac{10560}{8}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New
York state museum memoir 5. 1902. pl. 6, fig. 6.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5053 $\frac{10560}{7}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 7.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5054 $\frac{10560}{8}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 8.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5055 $\frac{10560}{9}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 9.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

TROCHONEMA Salter

Trochonema (*Eunema*) *fatua* *see* *Trochonema cf. fatuum*

Trochonema cf. fatuum Hall

- 5056 $\frac{10580}{1}$ HYPOTYPE *Trochonema* (*Eunema*) *fatua* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 345.

Trochonema cf. fatuum Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 5.

Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

PTEROPODA

CONULARIA Miller

Conularia gracilis Hall

- 5057 $\frac{11010}{1}$ HYPOTYPE *Conularia gracilis* Hall. Paleontology of New York. 1847. 1:224.

Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 1.

Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 1, fig. 1.

Utica shale

Dolgeville, Herkimer co. N. Y.

R. Ruedemann purchase

- 5058 $\frac{11010}{2}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 2; v. 18, pl. 2, fig. 10.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 1, fig. 2; pl. 3, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5059 $\frac{11010}{3}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 3.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 1, fig. 3.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5060 $\frac{11010}{4}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 4; v. 18, pl. 2, fig. 17.
Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 1, fig. 4; pl. 3, fig. 17.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5061 $\frac{11010}{5}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 6.
Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 1, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5062 $\frac{11010}{8}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 9, fig. 1-4; v. 18, pl. 2, fig. 1.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 2, fig. 1-4; pl. 3, fig. 1.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5063 $\frac{11010}{7}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 9, fig. 5, 6.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 2, fig. 5, 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5064 $\frac{11010}{8}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 9, fig. 7.

Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 2, fig. 7.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5065 $\frac{11010}{9}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 2.

Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 2.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5066 $\frac{11010}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 3, 4.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 3, 4.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5067 $\frac{11010}{11}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 5.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 5.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5068 $\frac{11010}{12}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 6.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 6.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5069 $\frac{11010}{13}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 11.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 11.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5070 $\frac{11010}{14}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 12.

Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 12.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

On slab with types of pl. 3, fig. 13 and 20.

- 5071 $\frac{11010}{15}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 13.
 Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 13.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
 On slab with types of pl. 3, fig. 12 and 20.
- 5072 $\frac{11010}{16}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 14-16.
 Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 14-16.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
- 5073 $\frac{11010}{17}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 19.
 Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 19.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
- 5074 $\frac{11010}{18}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 20.
 Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 20.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
 On slab with types of pl. 3, fig. 12 and 13.
- 5075 $\frac{11010}{19}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 1.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
- 5076 $\frac{11010}{20}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 2.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
- 5077 $\frac{11010}{21}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 3.
 Utica shale Dolgeville N. Y.
 R. Ruedemann purchase
 On slab with types of pl. 4, fig. 7 and 30.

- 5078 $\frac{11010}{22}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 4.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5079 $\frac{11010}{23}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 5.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5080 $\frac{11010}{24}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5081 $\frac{11010}{25}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 7.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 4, fig. 3 and 30.
- 5082 $\frac{11010}{26}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 8.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5083 $\frac{11010}{27}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 9.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5084 $\frac{11010}{28}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5085 $\frac{11010}{29}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 11.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 20.
- 5086 $\frac{11010}{30}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 12.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 16.

- 5087 $\frac{11010}{31}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 13.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5088 $\frac{11010}{32}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 14.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5089 $\frac{11010}{33}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 15.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 31.
- 5090 $\frac{11010}{34}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 16.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 12.
- 5091 $\frac{11010}{35}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 17.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5092 $\frac{11010}{36}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 18.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 34.
- 5093 $\frac{11010}{37}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 19.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 25.
- 5094 $\frac{11010}{38}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 20.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 11.
- 5095 $\frac{11010}{39}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 21.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

- 5096 $\frac{11010}{40}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 22.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5097 $\frac{11010}{41}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 23.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 27.
- 5098 $\frac{11010}{42}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 24.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5099 $\frac{11010}{43}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 25.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 19.
- 5100 $\frac{11010}{44}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 26.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5101 $\frac{11010}{45}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 27.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 23.
- 5102 $\frac{11010}{46}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 28.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5103 $\frac{11010}{47}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 29.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
- 5104 $\frac{11010}{48}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 30.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 3 and 7.

5105 $\frac{11010}{49}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 31.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

On slab with type of pl. 4, fig. 15.

5106 $\frac{11010}{50}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 32.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5107 $\frac{11010}{51}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 33.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5108 $\frac{11010}{52}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 34.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

On slab with type of pl. 4, fig. 18.

5109 $\frac{11010}{53}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 35.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

5110 $\frac{11010}{54}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 36.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

On slab with type of pl. 4, fig. 37 and 38.

5111 $\frac{11010}{55}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 37.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

On slab with type of pl. 4, fig. 36 and 38.

5112 $\frac{11010}{56}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 38.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

On slab with type of pl. 4, fig. 36 and 37.

5113 $\frac{11010}{57}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 39.

Utica shale

Dolgeville N. Y.

R. Ruedemann purchase

HYOLITHUS Eichwald

Hyalolithus neapolis Clarke

- 5114 $\frac{11029}{1}$ PLASTOTYPE *Hyalolithus neapolis* Clarke. United States geological survey bulletin 16. 1885. p. 56, pl. 3, fig. 4, 5.

Portage (Naples) beds

Parrish gully, Naples,
Ontario co. N. Y.

CEPHALOPODA

CYRTOCERAS Goldfuss

Cyrtoceras cf. brevicorne Hall

- 5115 $\frac{12110}{1}$ HYPOTYPE *Cyrtoceras brevicorne* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 356.

Cyrtoceras cf. brevicorne Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 89, pl. 13, fig. 12.

Lower Shelby dolomite Near Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Cyrtoceras orodes Billings

- 5116 $\frac{12111}{1}$ HYPOTYPE *Cyrtoceras orodes* Billings. Paleozoic fossils. 1865. 1:162.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 15, fig. 4, 5.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

- 5117 $\frac{12111}{2}$ HYPOTYPE? Clarke & Ruedemann New York state museum memoir 5. 1902. pl. 15, fig. 10, 11.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

CYRTORHIZOCERAS Hyatt

Cyrtorhizoceras curvicameratum Clarke & Ruedemann

- 5118 $\frac{12130}{1}$ TYPE *Cyrtorhizoceras curvicameratum* Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 90, pl. 17, fig. 1-3, 7.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

- 5119 $\frac{12130}{2}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 17, fig. 4, 6.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5120 $\frac{12130}{3}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 17, fig. 5.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5121 $\frac{12130}{4}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 17, fig. 8-10.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Dawsonoceras annulatum var. *americanum* see *Orthoceras* (*Dawsonoceras*) *annulatum* var. *americanum*

GEPHYROCERAS Hyatt

Gephyroceras perlatum Hall (sp.)

5122 $\frac{12163}{2}$ HYPOTYPE (of description) *Gephyroceras perlatum* Clarke. 16th annual report of the New York state geologist. 1899. p. 85.

Portage (Ithaca) beds Ithaca N. Y.
C. Van Deloo, coll. 1874

GYROCERAS De Koninck

Gyroceras farcimen Clarke & Ruedemann

5123 $\frac{12230}{1}$ TYPE *Gyroceras farcimen* Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 92, pl. 18, fig. 1-3.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5124 $\frac{12230}{2}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 18, fig. 4.

Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Kionoceras medullare see *Orthoceras* (*Kionoceras*) *medullare*

MANTIOCERAS Hyatt

Manticoceras contractum Clarke

5125 $\frac{12302}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 70, fig. 44.

Genesee shale (Styliola limestone)

Canandaigua lake, N. Y.
J. M. Clarke donor

Manticoceras oxy Clarke

5126 $\frac{12305}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 78, fig. 61.

Portage (Naples) beds

Naples N. Y.

J. M. Clarke, donor

ORTHOCERAS Breyn**Orthoceras (Dawsonoceras) annulatum** Sowerby

var. **americanum** Foord

5127 $\frac{12425}{1}$ HYPOTYPE *Orthoceras annulatum* var. *americanum* Foord. Cat. Fossil Ceph. British Museum. 1888. p. 56, 57.

Dawsonoceras annulatum var. *americanum* Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 11, fig. 1.

Lower Shelby dolomite

Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras crebescens Hall

5128 $\frac{12420}{1}$ HYPOTYPE *Orthoceras crebescens* Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 354.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 24.

Lower Shelby dolomite Near Shelby, Orleans co. N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5129 $\frac{12420}{2}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 27; pl. 11, fig. 2, 5.

Lower Shelby dolomite

Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5130 $\frac{12420}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 28; pl. 11, fig. 3.

Lower Shelby dolomite

Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5131 $\frac{12420}{4}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 11, fig. 4.

Lower Shelby dolomite

Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras darwini see *Orthoceras* (*Kionoceras*) *darwini*

Orthoceras (Kionoceras) darwini Billings

- 5132 $\frac{12421}{1}$ HYPOTYPE: HYPOPLASTOTYPE *Orthoceras darwini* Billings. Paleozoic fossils. 1862. 1:161.

Kionoceras darwini Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 11, fig. 6.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5133 $\frac{12421}{2}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 5, 6.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5134 $\frac{12421}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 7.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5135 $\frac{12421}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 8.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras (Kionoceras) medullare Hall

- 5136 $\frac{12384}{2}$ HYPOTYPE: HYPOPLASTOTYPE *Kionoceras medullare* Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 23.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras ontario Clarke

- 5137 $\frac{12422}{1}$ PLASTOTYPE *Orthoceras ontario* Clarke. United States geological survey bulletin 16. 1885. p. 51, pl. 3, fig. 1.

Portage (Naples) shale Parrish gully, Naples N. Y.

Orthoceras rectum Worthen

- 5138 $\frac{12423}{1}$ HYPOTYPE *Orthoceras rectum* Worthen. Geological survey of Illinois. 1875. 6:504.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 9.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras trusitum Clarke & Ruedemann

- 5139 $\frac{12424}{1}$ TYPE *Orthoceras trusitum* Clarke & Ruedemann.
New York state museum memoir 5. 1902. p. 77, pl. 13,
fig. 6.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5140 $\frac{12424}{2}$ TYPE Clarke & Ruedemann. New York state museum
memoir 5. 1902. pl. 13, fig. 10.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

POTERIOCERAS McCoy**Poterioceras** sp.

- 5141 $\frac{12470}{1}$ TYPE *Poterioceras* sp. Clarke & Ruedemann. New
York state museum memoir 5. 1902. p. 96, pl. 13,
fig. 13-16.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Poterioceras sauridens Clarke & Ruedemann

- 5142 $\frac{12471}{1}$ TYPE *Poterioceras sauridens* Clarke & Ruede-
mann. New York state museum memoir 5. 1902.
p. 93, pl. 14, fig. 1-3.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5143 $\frac{12471}{2}$ TYPE Clarke & Ruedemann. New York state museum
memoir 5. 1902. pl. 14, fig. 4.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5144 $\frac{12471}{3}$ TYPE Clarke & Ruedemann. New York state museum
memoir 5. 1902. pl. 14, fig. 5.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5145 $\frac{12471}{4}$ TYPE Clarke & Ruedemann. New York state museum
memoir 5. 1902. pl. 14, fig. 10, 11.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5146 $\frac{12471}{5}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York
state museum memoir 5. 1902. pl. 14, fig. 12-15.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5147 $\frac{12471}{6}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 14, fig. 16.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5148 $\frac{12471}{7}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 14, fig. 17.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5149 $\frac{12471}{8}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 14, fig. 18, 19.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

PROTOPHRAGMOCERAS Hyatt

Protophragmoceras patronus Clarke & Ruedemann

- 5150 $\frac{12490}{1}$ TYPE Protophragmoceras patronus Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 97, pl. 19, fig. 1, 2.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

TROCHOCERAS Barrande

Trochoceras costatum Hall

- 5151 $\frac{12571}{1}$ HYPOTYPE: HYPOPLASTOTYPE Trochoceras costatum Hall. Geological survey of Wisconsin; report of progress. 1861.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 1.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5152 $\frac{12571}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 2.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Trochoceras desplainense McChesney

- 5153 $\frac{12572}{1}$ HYPOTYPE Trochoceras desplainensis McChesney. New paleozoic fossils. 1859. p. 68.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 4.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

- 5154 $\frac{12572}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 6.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 5155 $\frac{12572}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 8.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

CRUSTACEA

ISOTELUS De Kay

Isotelus canalis Conrad

- 5156 $\frac{13640}{2}$ TYPE (Conrad in ms) Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 19.
Chazy limestone Chazy, Clinton co. N. Y.

Proëtus sp.

- 5157 $\frac{14005}{1}$ TYPE *Proetus* sp. Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 108, pl. 21, fig. 14.
Upper Shelby dolomite Oak Orchard creek,
2 miles south of Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902
- 5158 $\frac{14005}{2}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 21, fig. 15.
Upper Shelby dolomite Oak Orchard creek,
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R. Ruedemann and D. D. Luther, coll. 1902
- 5159 $\frac{14005}{3}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 21, fig. 16.
Upper Shelby dolomite Oak Orchard creek,
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R. Ruedemann and D. D. Luther, coll. 1902

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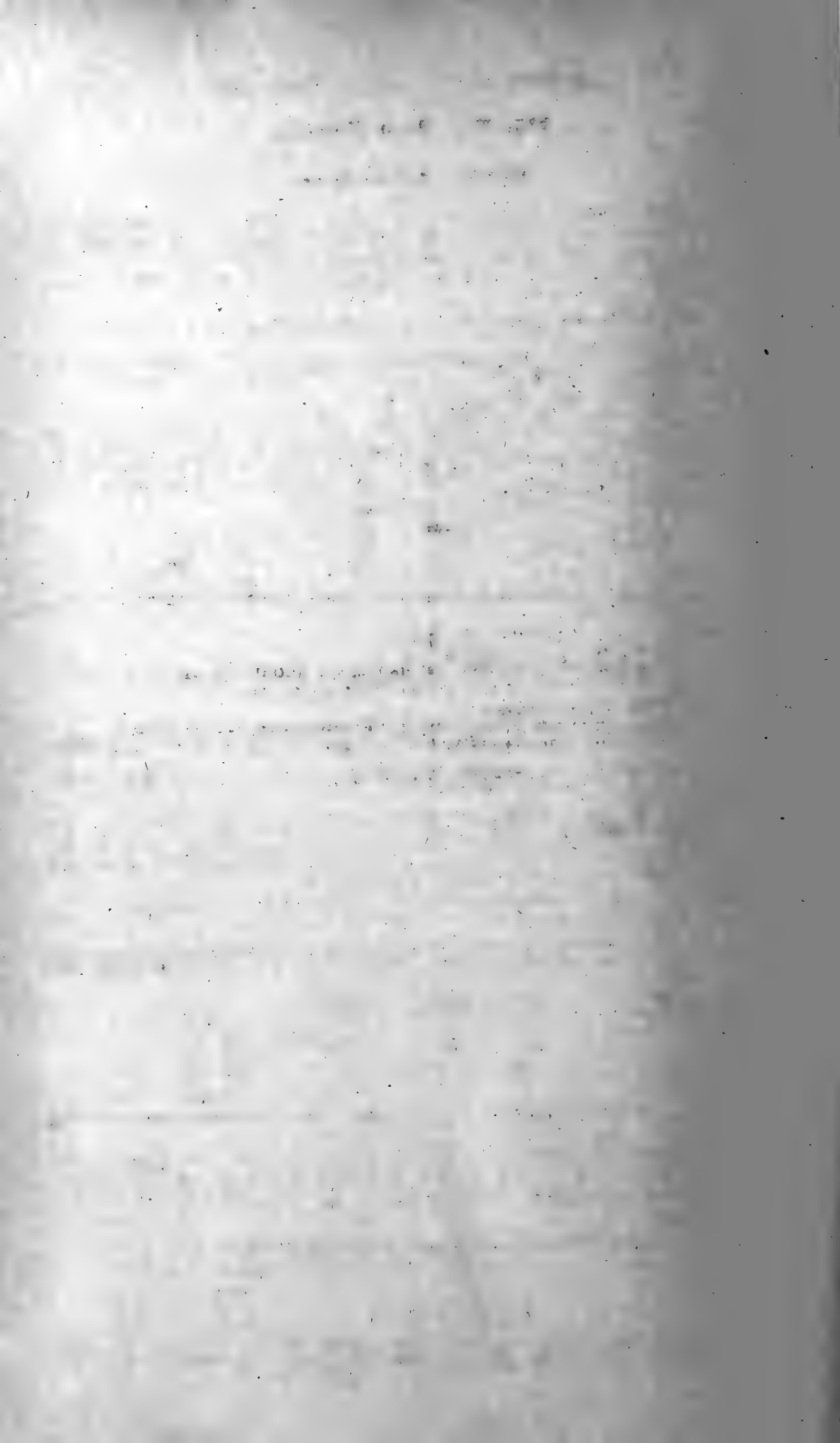
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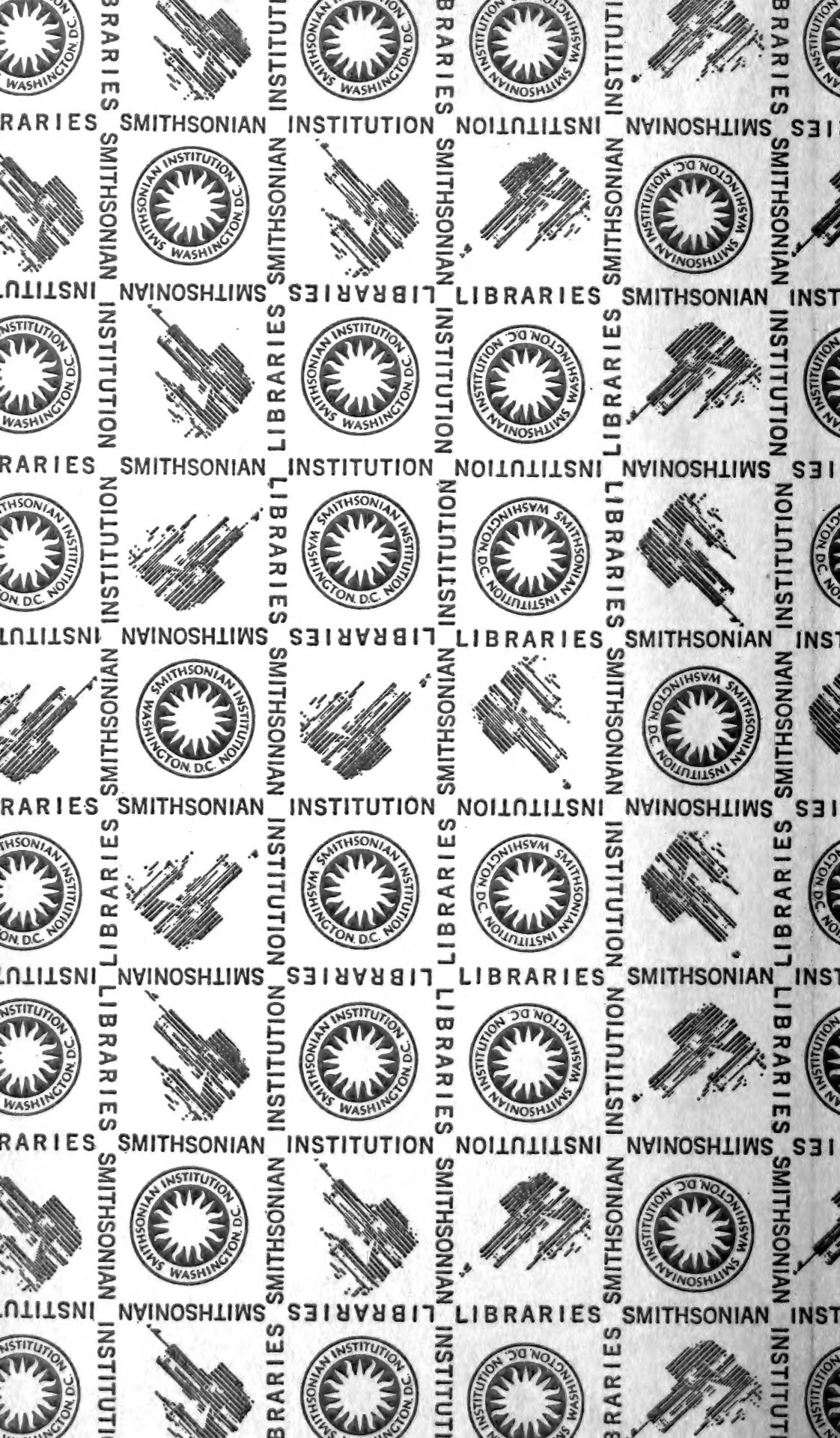
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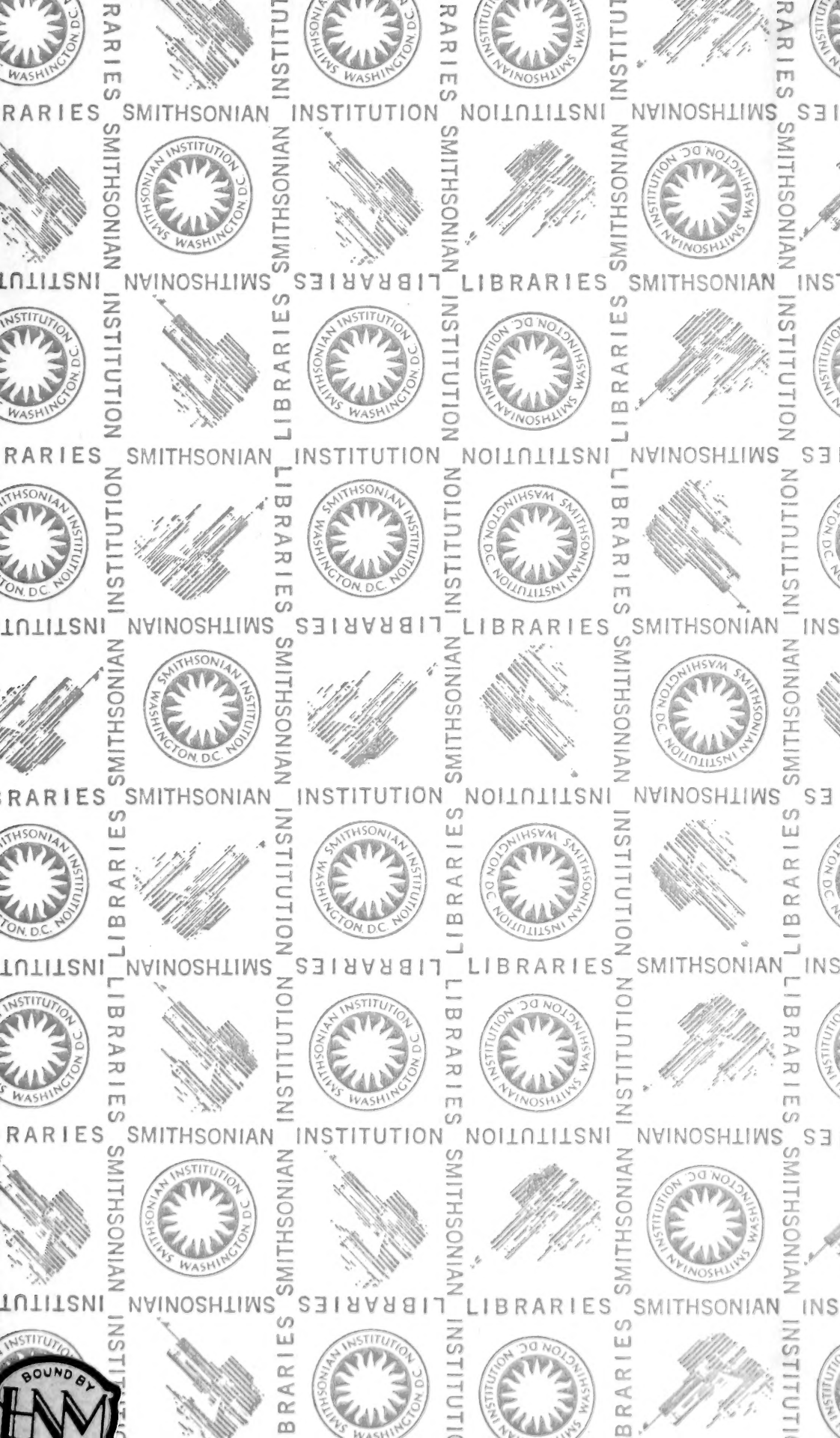
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